THE WTO CANADA RENEWABLE ENERGY FEED-IN TARIFF CASE AND ITS APPLICATION TO GREEN ENERGY PROJECTS IN THE DEVELOPING WORLD: THE ABDICATION OF THE SUBSIDIES AND COUNTERVAILING MEASURES AGREEMENT WITHIN GREEN ENERGY CONFLICTS

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ABSTRACT

Climate change abatement strategies are intrinsically linked to policies that encourage the use of alternative energy sources such as renewable energies. The importance of these strategies has been entrenched in various World Trade Organization (WTO) treaties including the *Agreement on Subsidies and Countervailing Measures* ("*SCM Agreement*"), *Agreement on Trade-related Aspects of Intellectual Property Rights* ("*TRIPS*"), *Agreement on Trade-Related Investment Measures* ("*TRIM*s"), as well as pre-WTO treaties like the *General Agreement on Tariffs and Trade* ("*GATT*").[1] The issue of environmental subsides, specifically renewable energy subsidies, have resurfaced in a number of disputes before the WTO Dispute Settlement Body since its first green subsidy case, brought in 2010 by Japan against Canada's Feed-In Tariff Program ("FIT Program").[2] In the initial

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1 *Agreement on Trade-related Aspects of Intellectual Property Rights*, Appendix 1C of the *Agreement Establishing the World Trade Organization* 15 April 1994, 1869 UNTS 299, online: WTO <www.wto.org> [*TRIPS*]; *General Agreement on Tariffs and Trade*, 30 October 1947, 55 UNTS 194, art XX(b), online: WTO <www.wto.org> [*GATT*]; *Agreement on Subsidies and Countervailing Measures*, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 UNTS 14 online: <https://www.wto.org> [*SCM Agreement*].

2 WTO, *Canada – Certain Measures Affecting the Renewable Energy Sector*, WTO Doc WT/DS412/AB/R (2013), online: <https://www.wto.org/>; WTO, *China – Measures Concerning World Power Equipment*, WTO Doc WT/DS419/1 (2012) online: <https://www.wto.org/>; WTO, *Canada – Measure Relating to Feed-in Tariff Program*,

case, Japan alleged that the Ontario FIT Program's local content requirement was discriminatory against foreign renewable energy products. Moreover, discrimination amounted to a prohibited subsidy under the *SCM Agreement* and was simultaneously contrary to the most-favourable nation status ("MFN") under the *GATT*. This decision raises concern about whether the *SCM Agreement* poses a barrier to governmental policies promoting FIT Programs to encourage renewable energy usage and its impact on the developing world.[3] Specifically, do treaties like the *SCM Agreement* impede the development of government climate change abatement policies by requiring these programs to meet a minimum standard of trade compliance? Should WTO treaties like the *SCM Agreement* be amended to include flexibilities to combat climate change, especially in light of the goals set in the 2015 *Paris Agreement* on climate change? This paper will review the WTO subsidy rules and query whether flexibilities need to be entertained within the area of non-actionable subsidies. This mode of inquiry questions whether FIT Programs be classified as subsidies under the *SCM Agreement*. If FIT Programs are properly classified as subsidies, should these initiatives be granted an exemption under the *SCM Agreement* on the basis of public policy— with the goal of facilitating affordable renewable energy and climate change abatement in the developing world?

WTO Doc WT/DS426/AB/R (2013), online: <https://www.wto.org/>; WTO, *European Union and Certain Member States – Certain Measures Affecting the Renewable Energy Sector*, WTO Doc WT/DS452/1 (2012), online: <https://www.wto.org/>; and WTO, *European Union and Certain Member States – Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry*, WTO Doc WT/DS459/1 (2013), online: [https://www.wto.org>].

3 WTO, Committee on Trade Related Investment Measures, *Minutes of Meeting* (24 June 2014) United States: Certain Local Content Requirements in Some of the Renewable Energy Sector Programs – Questions by India to the United States; WTO, Committee on Trade Related Investment Measures, *Minutes of Meeting* (18 April 2013) Subsidies questions posed by India to the United States under article 25.8 of the Agreement on Subsidies and Countervailing Measures – State Level Renewable Energy Sector Subsidy Programs With Local Content Requirements. WTO Committee on Subsidies and Countervailing Measures.

I. INTRODUCTION

Global interest in green energy subsidies continues to grow as governments attempt to implement policies that displace reliance upon high carbon-emitting fossil fuels and encourage environmentally sustainable consumption and industrial practices. Green energy programs may adopt various forms ranging from taxes on carbon to subsidies and price incentives for using renewable energy services and products.

A "green subsidy" has been defined as an "allocation of public resources for the purpose of improving sustainability over what would otherwise occur via the market."[4] The aim of green subsidies has been identified as developing "clean energy industries, phasing out fossil fuels, arresting climate change, and promoting sustainable production and consumption."[5] Green subsidies may also be viewed as an attempt to correct environmental market failures through fiscal policies.[6] The issue of subsidizing renewable energy technologies are often considered in response to the reality that many renewable energy alternatives are commercially inaccessible due to the high cost of production that cannot always be passed on to consumers.

Feed-In Tariffs ("FIT"), which fix the minimum price per kWh within a contract payable to generators of electricity for renewable energy, is a commonly selected policy method of encouraging renewable energy usage.[7]

FIT Programs are the most commonly used renewable energy policy mechanism by governments worldwide, and arguably the most important policy tool in addressing climate change.[8] In 2012, renewable energy FIT programs were adopted in over 90 jurisdictions, 65 countries, and 27 states around the world.[9] By 2015, a total of 108 jurisdictions utilized FIT

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4 Steve Charnovitz, "Green Subsidies and the WTO" (2014) World Bank Group: Office of the Chief Economist Policy Research Working Paper No 7060, online: [www-wds.worldbank.org] at 2.

5 *Ibid.*

6 *Ibid* at 2.

7 UNEP (2012), *Feed-in Tariffs as Policy Instruments for Promoting Renewable Energies and Green Economies in Developing Countries*, Geneva, online: <www.unep.org/pdf/UNEP_FIT_Report_2012F.pdf>.

8 Kenina Lee, "An Inherent Conflict Between WTO Law and Sustainable Future? Evaluating the Consistence of Canadian and Chinese Renewable Energy Policies with WTO Trade Law" (2011) 24 Geo Intl Envtl L Rev 57.

9 REN21: Renewable Energy Policy Network for the 21st Century, *Renewables 2012:*

Programs.[10] Photovoltaic solar plants are often governed by government-owned entities that act as industry regulators and purchase the energy from independent power producers. Article XVII (the Most Favoured Nation Treatment) of the *General Agreement on Tariffs and Trade ("GATT")* regulates state-owned enterprises to ensure non-discrimination of Member States. This paper will explore the impact of the *Subsidies and Countervailing Measures Agreement* ("SCM *Agreement*") on the implementation of green energy initiatives like FIT Programs in the developing world in general, and on a country specific level by utilizing Ghana, West Africa as a case study. It will assess the WTO decision in the *Canada Renewable Energy/Feed-in Tariff* case ("*Canada Renewable Energy/FIT* case") and its impact on renewable energy programs in sub-Saharan Africa, with specific focus on Ghana. It is important to ascertain whether the issue of subsidies as addressed in the *Canada Renewable Energy/FIT* case would be similarly applicable to developing countries like Ghana. This analysis will be limited to the impact that the WTO *Canada Renewable Energy/FIT* decision would have on a photovoltaic solar plant projects that contain a feed-in tariff.

The current regulatory structure of the Ghanaian energy sector was reflects significant influence from the World Bank's goal, in the early 90s, to halt funding of power sectors in the developing countries until sector reforms were implemented.[11] Reforms entailed changing the regulatory and legal framework in the power sector to improve transparency. Ghana's power industry is comprised of state-owned power generation utilities (the Volta River Authority and Bui Power Authority). However, independent power producers (IPP) also play a role in energy production in Ghana.

Global Status Report (Paris: REN2 Secretariat), online: [www.ren21.net/Portals/0/documents/Resources/GSR2012_low%20res_FINAL.pdf] . Note: the distinction between regions arises because some FIT schemes are implemented nationally for independent power producers through the Public Utilities Commission (PURC) as in the case with Ghana (despite having a state-owned utility scheme); other countries divide energy regulation by state or province (as in the case with Canada which adopts jurisdictional approach based on provincial region tariffs) or Nigeria where tariffs are implemented on a state level.

10 REN21: Renewable Energy Policy Network for the 21st Century, *Renewables 2015: Global Status Report* (Paris: REN21 Secretariat), online: <www.ren21.net/wp-content/uploads/2015/07/GSR2015_KeyFindings_lowres.pdf> [*Renewables 2015: Global Status Report*].

11 World Bank, (1993) The World Bank's Role in the Electric Power Sector, Washington D.C., World Bank.

Energy that is produced by IPP is transmitted by the Ghana Grid Company (GRIDCo), the Electricity Company of Ghana (ECG), and the Northern Electricity Distribution Company (NEDCo) into the same grid as government produced energy. By 2011, the Ghanaian government adopted a renewable energy framework aimed at providing fiscal incentives to independent power producers through the FIT scheme.[12] The *Ghana Renewable Energy Act* (2011) established both the FIT system and the Renewable Energy Purchase Obligation ("RPO"). The FIT rate is set by the Public Utilities and Regulatory Commission ("PURC"), which guarantees a tariff to the independent power producer for a fixed period of usually 10 to 15 years. This guarantee provides an assurance to independent power producers that they will be able to recoup the high cost of investments in renewable energy by having the purchase price of their energy fixed in the form of a tariff. The FIT system was developed from the "Ghanaian Sustainable Energy for All Action Plan," which was born out of the *Renewable Energy Act*.[13]

The *Ghana Renewable Energy Act* is similar in form and substance to Ontario's *Green Energy Act*[14], rendering Ghana a useful case study of the applicability of the WTO *Canada Renewable Energy/FIT* decision on countries in the developing world that have adopted similar FIT programs. An assessment of the *Canada Renewable Energy/FIT* case is crucial to understanding the impact of subsidy classification on green energy projects in the developing world. It will explore whether the Appellate Body decision is sufficient to guide international disputes arising from green energy initiatives, or if the *SCM Agreement* needs to be revised to provide legal parameters for defining the limits of green subsidies within the sphere of international trade. It will look at the treatment of the term "subsidy" as it relates to the *SCM Agreement* and its application to FIT schemes, especially

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12 *Renewable Energy Act*, Act 832 of the Parliament of the Republic of Ghana, 31 December 2011 [*Ghana Renewable Energy Act*], online: [www.energycom.gov.gh]; The *Ghana Renewable Energy Act* should be read in conjunction with the *Energy Commission Act*, Act 541 (1997), online: [www.energycom.gov.gh/files/ACT.pdf].

13 International Renewable Energy Agency, *Ghana Renewables Readiness Assessment* (2015), online: <www.irena.org/DocumentDownloads/Publications/IRENA_RRA_Ghana_Nov_2015.pdf>.

14 *Green Energy Act*, 2009, SO 2009, c 12, Sched A.

in light of the new requirements under the Paris Agreement on climate change.[15]

The *Canada Renewable Energy/FIT* cases raise questions about the viability of WTO treatise such as the SCM *Agreement* in addressing national environmental climate change goals similar to those arising from green energy initiatives. While the *Canada Renewable Energy/FIT* case is the first of its kind to be considered at the WTO, it gives rise to a number of Request for Consultations, some of which are still in the pipeline. The *Canada Renewable Energy/FIT* case raises concern over green energy initiatives that may be under attack[16] and how this will impact developing nations. This is particularly relevant in sub-Saharan Africa, where sustainable development may be tied to green initiatives like renewable energy FIT schemes. Specifically, how will the *Canada Renewable Energy/FIT* case impact on sub-Saharan nations like Ghana that have adopted energy policies that rely on FIT schemes to incorporate renewable energy alternatives in their development path? Does the climate change dilemma call for a resurrection of Article 8 of the SCM *Agreement* (non-actionable subsidies), which would protect subsidies associated with national environmental protection goals? These questions raise concerns about whether the treatment of climate change necessitates a modernization of the WTO SCM *Agreement* to account for environmental subsidies and development goals of disadvantaged regions.

The *Canada Renewable Energy/FIT* case was the first WTO challenge of discriminatory subsidies in the renewable energy sector. The European Union requested consultation with Canada on August 11, 2011 regarding its FIT Program. The European Union alleged that Canada's FIT Program breached its obligations under Article III:4 and III:5 of the *GATT 1994*; Member States were not offered the same favourable trade terms on renewable energy equipment, suppliers, and services as Canadian companies.[17] It was further alleged that the FIT Program constituted a trade-

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15 UNFCCC, Paris Climate Change Conference – 2015, online: <http://unfccc.int/meetings/paris_nov_2015/meeting/8926.php> [Paris Climate Change Conference – 2015].

16 Ben Beachy, "World Trade Organization Attacks Successful Canadian Clean Energy Program: Sierra Club and Public Citizen Express Disappointment" (21 November 2012), Public Citizen: Eyes on Trade, online: <www.citizen.typepad.com>.

17 WTO, *Canada – Certain Measures Affecting the Renewable Energy Sector* WTO Doc WT/DS412/AB/R (Panel Report) Dispute DS412 (2012), online: <www.wto.org>

related investment measure and was therefore inconsistent with Article 2.1 of the *TRIMs Agreement* and with Article III of the *GATT 1994*.[18] Finally, the request alleged that the FIT Program constituted a subsidy pursuant to Article 1 of the WTO *SCM Agreement* as a financial contribution was conferred to the energy producer, contrary to Articles 3.1(b) and 3.2 of the *SCM Agreement*.[19]

The Appellate Body in the *Canada-Renewable Energy/FIT* decision adjudicated on whether a FIT scheme that guaranteed payments to renewable energy producers while setting local content requirements for Canadian products was a subsidy under Article 1 of the *SCM Agreement* and, thus, a violation of Article III.4 of the *GATT* and 2.1 of the *TRIMs*. Domestic content requirements are sometimes used to encourage communities to transition to more expensive green energy alternatives in exchange for more jobs and community economic growth. While the issue of local content requirements will not be directly addressed in this paper, the distinction between subsidies that do not address market failures, and may result in a discriminatory effect, from those subsidies that address specific societal concerns such as the environment will be explored within the broader context of climate change.

With the absence of a "non-actionable" subsidy provision in the *SCM Agreement*, a major concern for green energy developers is whether measures aimed at encouraging green technologies within the renewable energy sector can withstand the scrutiny of international trade laws. A number of these programs, including the Ontario FIT Programs, have come under fire, primarily for local content requirements.[20] The issue of subsidies and renewable energy arises in international law as national environmental strategies such as the solar energy feed-in tariff program may be inconsistent with WTO rules. This inconsistency results from a failure to clearly

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[*Canada Renewable Energy/FIT* (Panel Decision)]; WTO, *Canada –Measures Relating to the Feed-in Tariff Program*, WTO Doc WT/DS426/AB/R (Appellate Body Report) Dispute DS426 (2013), online: <www.wto.org> [*Canada Renewable Energy/FIT Case* (Appellate Body Report)].

18 *Agreement on Trade Related Investment Measures*, online: <www.wto.org> [*TRIMs*].

19 *Canada Renewable Energy/FIT Case* (Appellate Body Report), *supra* note 17.

20 *Canada Renewable Energy/FIT* (Panel Decision), *supra* note 17; WTO, *China – Measures Concerning World Power Equipment*, WTO Doc WT/DS419/1 Request for Consultations (2010), online: <www.wto.org>; *Canada – Renewable Energy/FIT Case* (Appellate Body Report), *supra* note 17.

distinguish distorting subsidies from correcting ones. Note that scholars have advocated for subsidies to be subject to one of two classifications: non-actionable, which have a public policy goal like environmental preservation, and actionable subsidies, which are designed to address protectionist measures.[21] By failing to address such a distinction, the *Canada Renewable Energy/FIT* decision renders the viability of the FIT Program as a means of providing alternative energy and technology transfer to the developing world highly uncertain. Furthermore, the growth in trade disputes has raised questions about whether the WTO Agreements and *GATT* are sufficient to address environmental issues while preserving the rights of least-developed and developing nations to pursue development. This question is of even greater concern where countries can be penalized for promoting policies that replace traditional energy that emits higher GHG, with renewable energy programs that are subsidized by governments.[22]

A. The Connection Between Climate Change and Subsidies in sub-Saharan Africa

Climate change will have profound effects on continental Africa.[23] The issue of energy insecurity in sub-Saharan Africa is clearly linked to regional development goals (such as infrastructural development, technology and knowledge transfer), and these initiatives can be combined with climate change abatement strategies. This dual initiative which recognizes energy as a precondition for economic development is being addressed by a group of nations known as the Economic Community of West African States (ECOWAS) which is comprised of 15 sovereign nations: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mail, Niger, Nigeria, Senegal, Sierra Leone and Togo.[24] The

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21 Simon Lester, "The Problem of Subsidies as a Means of Protectionism: Lessons from the WTO EC-Aircraft Case" (2011) 12 *Melbourne J Intl L* 1.

22 Aaditya Mattoo & Arvind Subramanian, "Four Changes to Trade Rules to Facilitate Climate Change Action" (2013) 13:10 *Peterson Institute for International Economics Policy Brief*, online: <www.piie.com/publications/pb/pb13-10.pdf>.

23 United Nations Economic Commission on Africa, "Economic Report on Africa 2014: Dynamic Industrial Policy in Africa at xiv, online: <www.uneca.org/sites/default/files/PublicationFiles/final_era2014_march25_en.pdf > [*ECOWAS*].

24 REN21, ECOWAS Renewable Energy and Energy Efficiency Status Report (Paris: REN21 Secretariat, 2014), online: <http://www.ren21.net/Portals/0/documents/e-

combined population of ECOWAS exceeds 334.6 million people.[25] Three Member States comprise more than two-thirds (67.5%) of the entire region's population (Côte d'Ivoire 6.8%, Ghana 7.7%, and Nigeria 52.9%).[26] Of 346 million people, only 8 per cent of rural residents and 42 per cent of the total population have access to electricity.[27] This number is severely reduced when one considers those whose access to electricity can be said to be reliable and consistent.

The volatility in energy may arguably be at the root of underdevelopment, poverty, and even health issues within the region. Currently, cooking via wood and charcoal accounts for 85.7 per cent of the population's solid fuel usage. The inhalation effects of these methods of energy have a more profound impact on women and children, who are most often required to tend fires and prepare meals.[28] A clear correlation has been established between "energy access and human economic development", which heightens the priority for energy security in the ECOWAS region.[29] In general, the sub-Saharan region has the highest concentration of peoples without access to electricity on the planet, totaling at 599 million (47.6%), followed by Asia at 309 million (24.6%) and India at 306 million (24.3%).[30]

Lack of energy is also directly correlated to human health and the environment. More than 85.7% of the ECOWAS population currently use traditional biomass and solid fuels for cooking and heating.[31] Reliance on high carbon dioxide emitting energy sources have had a negative health impact on the population in the region and it is estimated that "more than 257.8 million people [are] being affected by household air pollution from indoor smoke, small particle pollution, carbon monoxide, and nitrogen

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paper/ECOWAS/epaper/ausgabe.pdf?rnd=54ca63edd2684> [*ECOWAS Renewable Energy Status Report*].

25 *Ibid.*

26 *Ibid* at 19.

27 *Ibid* at 22–23. Note the electricity rates in the region vary tremendously with some areas like Cabo Verde having full access, while others like Niger only have a 9 per cent electrification rate.

28 *Ibid* at 26.

29 *Renewable Energy Global Status Report 2015*, *supra* note 10 at 12.

30 *Ibid* at 22.

31 *Ibid* at 13.

oxides" along with unnecessary burns and increased cancer threats.[32] There is also concern that this region may be less able to respond to the effects of climate change due to the lack of "resilience in energy planning."[33]

Population growth projections of 2.5 per cent per year, and increased urbanization, also heighten the need to consider renewable energy sources within the region. In fact, sub-Saharan Africa is optimally positioned to take advantage of renewable energy sources like solar photovoltaic energy production that can be optimized due to close proximity to the equator. The region's renewable energy potential has been identified as immense and reported as follows:

> An estimated 23,000 MW of hydroelectric potential is concentrated in 5 of the 15 member States, of which only about 16 per cent has been exploited. According to preliminary estimates, small hydropower potential in the region amounts to around 6,000 MW. There is good potential for all forms of bioenergy. There are considerable wind, tidal, ocean, thermal and wave energy resources available in some ECOWAS countries. The region also has vast solar energy potential with very high radiation averages of 5 to 6 kWh/m throughout the year.[34]

The vastness of the renewable energy resources in the region makes green energy options a viable and logical inclusion in development goals. In addition, the region has also set renewable energy goals as a part of the ECOWAS Renewable Energy Policy (EREP) that aims for an "overall electricity mix to 35 per cent by 2020 and 48 per cent by 2030."[35]

II. Trade, The *GATT, SCM* Agreement & International Law

Governments are increasingly attempting to incorporate environmental targets in their economic strategies. With new nationally determined pledges emerging from the Paris 2015 World Environmental Summit,[36] countries must be free to implement policies that will encourage investment in renewable energy projects. This means that flexibilities, like those

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32 *ECOWAS*, *supra* note *23* at 13.

33 *Ibid.*

34 Karin Reiss, "Developing Renewable Energy Sectors and Technologies in West Africa" (2015) 3 UN Chronicles 33 at 33–34.

35 *Ibid.*

36 Paris Climate Change Conference – 2015, *supra* note 15.

previously included for non-actionable subsided in the *SCM Agreement* and national urgency and economic development flexibilities in *TRIPS,* must be considered not only as a national strategy, but also as a contribution to the global policy goal for climate change abatement. The costliness of green energy alternatives such as photovoltaic solar plants may require some form of government assistance to entice energy producers to invest, especially in developing nations. This raises question of whether public policy concern for climate change abatement could also warrant similar flexibilities as emerged from other social debates like the affordable medicines conflict?[37]

There are a number of flexibilities that can be extracted from the *GATT* that would affect green energy projects. Specifically, Article XX(b) of the *GATT* creates exceptions allowing a Member State to introduce measures that are "necessary to protect human, animal or plant life or health".[38] A specific exception also exists for the environment relating "to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption".[39] Thus, where Articles XX(b) and (g) of the *GATT appear* to support environmental subsidies, the *SCM Agreement* no longer contains exceptions for such flexibilities.

There are a number of flexibilities in several international agreements, including the *GATT 1994*, that would support national environment and climate change goals. These climate change abatement initiatives have been contemplated for decades and were raised at the Doha Round negotiations.[40] These negotiations essentially stalled and were not resuscitated, failing to result in an international agreement on renewable energy or WTO policy on the issue.[41] As such, the *SCM Agreement* is the most relevant document governing renewable energy subsidies and trade. The flexibilities that pertained to the *SCM Agreement* expired on January 1,

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37 Leslyn A Lewis, "The Applicability of *TRIPS* Flexibilities to the Developing World for Climate Change Mitigation as a Public Good in Green Energy Projects" (2015) 15 Asper Rev of Intl Bus & Trade L 129.

38 *GATT, supra* note 1 at art XX(b).

39 *Ibid* at art XX(g).

40 WTO Doha Ministerial Meeting, Ministerial Declaration November 2001, adopted on 14 November 2001, WTO Doc 20 WT/MIN(01)/DEC/1, online: <www.wto.org>.

41 David A Gantz, "World Trade Law after Doha: Multilateral, Regional, and National Approaches" (2011-2012) 40 Denv J Intl L & Pol 321.

2000 and have not been renewed.[42] Under Part IV of the SCM *Agreement*, a number of subsidies were previously deemed "non-actionable", including certain programs for adopting new governmental environmental requirements as well as programs for disadvantaged regions.[43]

A. Actionable and Non-Actionable Subsidies

The SCM *Agreement* is the primary international agreement on how a "subsidy" should be defined and it recognizes two types of subsidies: prohibited, which, if successfully challenged, must be removed,[44] and actionable, which, if successfully challenged, may require an amendment to the infringing portion.[45] Further, there are two types of prohibited subsidies: export subsidies and local content subsidies.[46] Even if a subsidy is not prohibited, it can be actionable if it is "specific to an enterprise or industry or group of enterprises or industries within the jurisdiction of the granting authority"[47] and adversely affects another Member. This raises questions about whether FITs, which are specific to the renewable energy industry, constitute a subsidy under the SCM *Agreement*. FIT schemes are usually long term, fixed price contracts between renewable energy producers and governmental or quasi-governmental entities to provide energy in exchange for feeding into the grid system that is usually operated and maintained by another government or quasi-government entity. The question is couched in the notion that FITs create a dual pricing scheme which discounts renewable energy sources by setting fixed tariffs, a form of "government support" deemed to be a subsidy. In this regard, WTO rules and the SCM *Agreement* do not distinguish between subsidies that attempt to correct environmental distortions and those that distort trade. A country

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42 Sadeq Z Bigdeli, "Resurrecting the Dead? The Expired Non-Actionable Subsidies and the Lingering Question of "Green Space", (2011) 8 Manchester J Intl Economic L 2 [Bigdeli, "Resurrecting the Dead?"]; Sadeq Z Bigdeli, "Incentive Schemes to Promote Renewables and the WTO Law of Subsidies" in *International Trade and Mitigation of Climate Change*, Thomas Cottier, Olga Nartova & Sadeq Z Bigdeli eds (New York: Cambridge University Press, 2009) [Bigdeli, "Incentive Schemes"].

43 SCM *Agreement*, *supra* note 1.

44 SCM *Agreement*, *supra* note 1. Article 3 recognizes export and importation subsidies as prohibited.

45 *Ibid*, art 5.

46 *Ibid*, art 3.

47 *Ibid*, arts 1.2, 2 & 5.

that objects to a Member's practice can either challenge the activity, as in the case of actionable subsidies like FITs, or request countervailing measures be imposed on imports for other actionable subsidies. In cases of prohibited subsidies like local content or export subsidies, infringing provisions must be removed.[48] In contrast, only the adverse effects need to be removed from an actionable subsidy.[49] Failure to remedy the infringing portion can result in countermeasures by the Complainant against the offender pursuant to Article 7.9 of the *SCM Agreement.*[50]

As most subsidies fall under the actionable category, rectification is often limited to an amendment of the practice bearing the adverse impact. While the *SCM Agreement* does not specifically define a "prohibited" or "actionable" subsidy, Mitsuo Matsushita, Thomas Schoenbaum, and Petros Mavroidis recognize a catch-all classification of an actionable subsidy—"by default: all government schemes which qualify as subsidies, and which are neither prohibited nor non-actionable, are, in principle, actionable subsidies."[51] It has been argued that the original purpose of the *SCM Agreement* was to provide assistance for the cost of adapting to new environmental requirements and for costs associated with upgrading old facilities to environmentally friendly ones.[52] The very existence of the now lapsed third class of a non-actionable subsidy, is evidence of the original intent of the *SCM* as it relate to having a separate category for subsidized environmental and development activities. However, in light of the *Canada Renewable Energy* case, the *SCM*'s impact on FITs as a policy tool is yet to be tested among the ECOWAS Members and many regions in the developing world and sub-Saharan Africa. Specifically, it is uncertain whether the WTO Dispute Settlement Body would interpret the *Canada Renewable Energy* case in the same manner for a developing nation as it did for a developed economy like Canada. Essentially, a strict interpretation of the domestic

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48 *Ibid,* art 4.7.

49 *Ibid,* art 7.8.

50 *Ibid*, art 7.9.

51 Motsuo Matsushita, Thomas J Schoenbaum, & Petros C Mavroidis, *The World Trade Organization: Law, Practice and Policy*, 2nd ed, (United Kingdom: Oxford University Press, 2006).

52 Patrick J McDonough, "Subsidies and Countervailing Measures", in Terence P Steward (ed), *The GATT Uruguay Round: A Negotiating History* (1986-1992) (Boston, Mass: Kluwer Law, Deventer, the Netherlands, 1993) at 803–1008.

content restrictions and other prohibitions could potentially be in conflict with the flexibilities within governing Agreements like the SCM and *GATT* which encourages regional development by recognizing the unique circumstances surrounding underdevelopment and trade. This raises questions about whether environmental subsidies should be deemed as actionable, prohibited or whether the third class of non-actionable subsidy should be resurrected.

The *SCM Agreement* also provided for "non-actionable" subsidies existed between 1995 and 1999.[53] As noted above, there are now only two categories of subsidies. Prior to 1999, Article 8 of the *SCM Agreement* provided that no actions could be taken against subsidies that promoted research and development, technology, industrial policies like technology transfer and facility upgrades, as well as environmental protection and regional aid.[54] Provisions pertaining to "non-actionable" subsidies also permitted "assistance to disadvantaged regions within the territory of a Member given pursuant to the framework of regional development".[55] The *SCM Agreement* also recognized subsidies that further environmental adaptation pursuant to Article 8.2(c), which required it to "promote adaptation of existing facilities to new environmental requirements imposed by law and/or regulations".[56]

The *SCM Agreement* was preceded by the 1979 *Subsidies Code*, which recognized subsidies as "important instruments" in the promotion of "social and economic policy objectives".[57] The *Subsidies Code* listed the following important objectives of non-actionable subsidies:

> (a) the elimination of industrial, economic and social disadvantages of specific regions,
> (b) to facilitate the restructuring, under socially acceptable conditions, of certain sectors, especially where this has become necessary by reason of changes in trade and economic policies, including international agreements resulting in lower barriers to trade,

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53 *SCM Agreement*, *supra* note 1 at arts 8 & 31.

54 *Ibid,* art 8.2(b)

55 *SCM Agreement*, *supra* note 1 at art 8.2(c).

56 *Ibid*.

57 See GATT, Agreement on Interpretation and Application of Articles VI, XVI and XXIII of the General Agreement on Tariffs and Trade, Doc LT/TR/A/3, art 11, para 1, online: <https://www.wto.org/english/docs_e/legal_e/prewto_legal_e.htm> [*Subsidies Code*].

(c) generally to sustain employment and to encourage re-training and change in employment,
(d) to encourage research and development programmes, especially in the field of high-technology industries,
(e) the implementation of economic programmes and policies to promote the economic and social development of developing countries.
(f) redeployment of industry in order to avoid congestion and environmental problems.[58]

The *Subsidies Code* was also the predecessor to the Uruguay Round *Subsidies Agreement* and the *Subsidies and Countervailing Measures Agreement*. During the Uruguay Round negotiations, the United States strongly opposed the inclusion of non-actionable subsidies related to research and development, environmental and also regional aid policies.[59] Opposition to the non-actionable class was based on the potential abuse that could result where no action could be taken for discriminatory practices. In response, it was agreed that the provision would be reviewed five years after the conclusion of the Uruguay Round in 1994. Instead of conducting a review in 1999, the non-actionable subsidies category was not addressed and therefore lapsed. It should be noted that during the five years of its existence, it was never invoked or relied on by a Party.[60] It is not clear that it was the intention of the *SCM Agreement* to completely remove the non-actionable subsidy category under Article 8, and there was concern among States that its removal sent the wrong signals in relation to international environmental law.[61]

The original Article 8.2(c) set limits on environmental subsidies by limiting them to the following:

assistance to promote adaptation of existing facilities to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on firms, provided that the assistance:
(i) is a one-time non-recurring measure; and

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58 *Ibid.*

59 GATT, *Elements of the Framework for Negotiations, Submission by the United States*, Doc MTN.GNG/NG10/W/29 (22 November 1989), online: <https://www.wto.org/gatt_docs/English/SULPDF/92080203.pdf>.

60 Rios Herran & Pietro Poretti, "WTO - Trade Remedies" in Rudiger Wolfrum, Peter Tobias Stoll and Michael Koebele (eds), *WTO - Trade Remedies: Max Planck Commentaries on World Trade Law* (Leiden, Boston: Martinus Nijhoff Publishers, 2008) vol 4, 545–552 at 552.

61 Bigdeli, "Resurrecting the Dead?", *supra* note 42.

(ii) is limited to 20 per cent of the cost of adaptation; and
(iii) does not cover the cost of replacing and operating the assisted investment, which must be fully borne by firms; and
(iv) is directly linked to and proportionate to a firm's planned reduction of nuisances and pollution, and does not cover any manufacturing cost savings which may be achieved; and
(v) is available to all firms which can adopt the new equipment and/or production processes."[62]

The restrictive nature of Article 8.2(c) may explain why it was not invoked during the five year period over which it existed. However, despite its non-use, the spirit of this lapsed section was incorporated in the *Canada Renewable Energy/FIT* decision. The requirement of a "one-time non-recurring measure" in Article 8.2(c)(i) is similar in reasoning to the "new industry" approach that was adopted by the Appellate Body decision in the *Canada Renewable Energy/FIT* case and which will be reviewed later in this paper.

B. Subsidies and Green Energy Programs

Globally, the energy sector is one of the most heavily subsidized, with an estimated annual subsidy of US $ 100 billion in 2012;[63] it is arguably one of the most heavily subsidized industries in the world.[64] The International Energy Agency ("IEA") has estimated that removing fossil fuel subsidies could lower greenhouse gas emissions by the 2 degrees Celsius climate change targets.[65] Whereas it is estimated that global fossil fuel subsides totalled $ 523 billion in 2011, renewable energy subsidies only amounted to $ 88 billion in the same year.[66] An energy subsidy is defined

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62 *SCM Agreement*, *supra* note 1 at art 8.2(c) (notes deleted).

63 IEA, *World Energy Outlook 2013* (Paris: International Energy Agency, 2013), online: <www.worldenergyoutlook.org/publication/seo-2013/>.

64 *United Nations Secretary-General's High-level Panel on Global Sustainability, Resilient People, Resilient Planet: A Future Worth Choosing* (New York: United Nations, 2012) at 52.

65 Duncan Clark, "Phasing out fossil fuel subsidies could provide half of global carbon target" (19 January 2012), The Guardian, online: <https://www.theguardian.com>; See also IEA, "Energy Subsidies", World Energy Outlook, online: <www.worldenergyoutlook.org/resources/energysubsidies/> [World Energy Outlook].

66 International Energy Agency, *World Energy Outlook 2012: Executive Summary* (Paris: OECD/IEA, 2012) at 1 & 6, online: <www.iea.org/publications/freepublications/publication/English.pdf>. For a detailed assessment of green energy policy instruments see also: Pablo Benitez, "Policy Instruments for Renewable: An Introduction" ESMAP/IFC Renewable Energy

as "any government action that concerns primarily the energy sector that lowers the cost of energy production, raises the price received by energy producers or lowers the price paid by energy consumers."[67] The IEA recognizes the need to form a comprehensive global energy strategy that will address transition to renewable energy sources and the irreplaceable role of subsidies in this endeavor. The IEA does, however, caution the use of subsidies by governments, noting the following:

> Governments need, though, to be attentive to the design of their subsidies to renewables, which surpassed $100 billion in 2012 and expand to $220 billion in 2035. As renewables become increasingly competitive on their own merits, it is important that subsidy schemes allow for the multiple benefits of low carbon energy sources without placing excessive burdens on those that cover the additional costs. A carefully conceived international climate change agreement can help to ensure that the energy-intensive industries in countries that act decisively to limit emissions do not face unequal competition from countries that do not.[68]

The issue of subsidies is still contentious when weighed against the merits of the Polluter Pays Principle. The Polluter Pays Principle was adopted by the OECD in 1972 and has been argued to stand for a no subsidy principle,[69] wherein the cost of the externality is borne by the polluter. With respect to feed-in tariffs, changes to the local regulatory framework, and the adoption of the FIT system, may not necessarily constitute a subsidy. Robert Howse, among other scholars, argue that renewable energy schemes like feed-in tariffs are not "financial contributions" under Article 1.1(a) of the *SCM Agreement*.[70]

Training Program, World Bank (18 September 2012), online: World Bank Institute <www.esmap.org/site/esmap.org/files/ESMAP%201FC%20Training%20World%20Bank%20Benitez.pdf>.

67 International Energy Agency, *World Energy Outlook 1999: Looking at Energy Subsidies: Getting the Price Right* (Paris: OECD/IEA, 1999).

68 International Energy Agency, *World Energy Outlook 2013: Executive Summary* (Paris: OECD/IEA, 2013), online: <www.iea.org/Textbase/npsum/WEO2013SUM.pdf> at 3.

69 Charles S Pearson, "Testing the System: GATT + PPP = ?" (1994) 27 Cornell Intl LJ 553.

70 Robert Howse, "Post-Hearing Submission to the International Trade Commission: World Trade Law and Renewable Energy: The Case of Non-Tariff Measures" (2005) 3:2 Oil, Gas & Energy L Intelligence 2.

International law has no singular treatise to regulate energy law.[71] Moreover, the tools utilized by various countries to promote renewable energy technologies differ in scope and breadth. The *GATT* and several WTO[72] treaties are particularly relevant in governing international energy law. The issue of subsidies and renewable energy is closely connected to how the Most Favoured Nation ("MFN") Principle of the *GATT* applies to local environmental policies and projects. This principle ensures that countries offer the same treatment to foreign industries as they offer to local businesses. The MFN Principle stipulates that all trading partners must be treated equally and free of discrimination. Article III:4 of *GATT* stipulates the following: "The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements."[73]

An exception exists under III:8(a) of *GATT*, which exempts government procurement initiatives from the effects of Article III:4.[74] Accordingly, the primary issue in the *Canada Renewable Energy/FIT* Appeal was whether government procurement programs such as the FIT could be exempt from the MFN requirement under Article III:8(a) of *GATT*. Article III:8(a) of the *GATT* may be applicable to subsidies that are specific to the public good they are attempting to uphold, if they contain the minimal trade distortion.

Several scholars in the area of subsidies have argued that Article XX of the *GATT* actually permits non-actionable subsidies where the goal is environmental sustainability.[75] The *SCM Agreement* was contemplated in the

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71 *International Trade and Mitigation of Climate Change*, Thomas Cottier, Olga Nartova & Sadeq Z Bigdeli eds (New York: Cambridge University Press, 2009) [Cottier et al].

72 There are a number of WTO Agreements that apply to international energy law: *General Agreement of Tariffs and Trade*; the *General Agreement on Trade in Services*; the *Trade Related Investment Measures*; the *Subsidies and Countervailing Measures Agreement*; the *Technical Barriers to Trade Agreement*; and the *Agreement on Government Procurement*.

73 *GATT*, *supra* note 1.

74 *Ibid*, arts III:8(a) & III:4.

75 Robert Howse, "Do the World Trade Organization Disciplines on Domestic Subsidies Make Sense? The Case for Legalizing Some Subsidies", in Kyle W Bagwell, George A Bermann, and Petros C Mavroidis (eds), *Law and Economics of Contingent Protection in International Trade* (New York: Cambridge University Press, 2010) 85–102; Luca Rubini, *The Definition of Subsidies and State Aid: WTO and EC Law in Comparative Perspective* (Oxford, UK: Oxford University Press, 2010) 2012; Alan O Sykes, "The Economics of the WTO Rules on Subsidies and Countervailing Measures", in Patrick F J Macrory,

GATT Council Meeting, 1991 Secretariat documents on Trade and the Environment.[76] The reference in the *GATT* document reads:

> The text of the draft Agreement on Subsidies and Countervailing Measures under negotiation in the Uruguay Round contains some modifications to the subsidy rules. The draft has attempted to define "non-actionable" subsidies as those related, under certain conditions, to research and development, structural adjustment assistance, environmental protection and regional aids.[77]

While the above Article 8(b) and (c) provisions of the *SCM Agreement*, referenced in the *GATT* document, have expired, these flexibilities, if operable, could act as a means to promote green subsidies. Arguably, the framers of the *SCM Agreement* may not have intended to have non-actionable subsidies aimed at addressing environmental distortions and development issues to be permanently removed from *the SCM Agreement*.

1. Climate Change Abatement Subsidies

The 1947 *GATT* was the first international treaty to explicitly prohibit subsidies that distort trade. After the creation of the WTO in 1995, the possibility of encouraging positive behavior through the subsidization of renewable energy technologies was vigorously entertained.[78] The United Nations Environment Program also acknowledged the role of green subsidies as necessary, "justified by the positive externalities expected from a green economy and ... important for leveraging private investments".[79] As

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Arthur E Appleton, Michael G Plummer (eds), *The World Trade Organization: Legal, Economic and Political Analysis*, vol I (Springer Verlag: New York City, New York, 2005) at 28 [Sykes, "Economics of the WTO Rules"].

76 GATT, Secretariat, *Trade and Environment* (18 September 1991), GATT Doc L/6896 at 4, online: <https://www.wto.org/gatt_docs/English/SULPDF/91530963.pdf> ["GATT Secretariat Note"].

77 *Ibid* at 16.

78 Philippe Menanteau, Dominique Finon, & Marie-Laure Lamy. "Prices versus quantities: choosing policies for promoting the development of renewable energy" (2003) 31:8 Energy Policy 799; M L Weitzman, "Prices vs Quantities" (1974) 41:4 Rev Economic Studies 477; Ryan Wiser & Steven Pickle, "Green marketing, Renewables, and Free Riders: Increasing Customer Demand for a Public Good" (Ernest Orlando Lawrence Berkeley National Laboratory, 1997), online: <https://www.osti.gov/scitech/servlets/purl/645498/>; Norbert Wohlgemuth, *Renewable Energy Promotion in Competitive Electricity Markets* (Solar Energy Society, London, 1999).

79 United Nations Environmental Programme 2011, *Towards A Green Economy: Pathways to Sustainable Development and Poverty Eradication, UNEP, 2011*, online:

it has already been acknowledged, subsidies are required, as renewable energy projects are often not suitable capital ventures and investors are often cautious about the riskiness of their return on investment.[80] While subsidies attempt to create an incentive for the investor or energy producer, local content requirements aim to stabilize and enhance development in the local economy. While these requirements may amount to a subsidy to an industrialized country, the same may not be true in the developing world that struggles with industrialization.

The ban on subsidies that distort trade was initiated by the *GATT* in 1947 and was specified by the WTO in its *SCM Agreement*.[81] The current legal landscape may not fully account for the role of subsidies in correcting market failures like those caused by environmental externalities such as pollution. The WTO and its Dispute Body has been the main international regulator on subsidy disputes. The problem arises from the *SCM Agreement*'s failure to clearly distinguish between distorting and correcting subsidies. This quagmire obscures the role of the WTO as a regulator of trade and questions its assistance in redefining trade laws to incorporate climate change objectives.[82] In this regard, it has been maintained that the WTO Dispute Body should not be a regulator of trade, but should be expected to form a global "consensus on renewable energy support measures".[83] Consequently, international trade law recognizes the public good value associated with climate change abatement strategies, despite this, the solution of recapturing environmental externalities by subsidizing practices that minimize pollution continues to be at odds with the definition of what traditionally constitutes a subsidy. As Sykes argues, WTO law and international trade treatise, in particular, do not engage the question of

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<https://sustainabledevelopment.un.org/> at 613.

80 Michael Levi, "The Hidden Risks of Energy Innovation" (2013) 29:2 Issues in Science & Technology, online: <http://issues.org/29-2/michael-2/>.

81 *Ibid.*

82 Allen O Sykes, "The Economics of WTO Rules on Subsidies and Countervailing Measures" (2013) University of Chicago Law and Economics: John M Olin Program in Law and Economics Working Paper No 186; Howse, *supra* note 75.

83 Aaron Cosbey "Renewable Energy Subsidies and the WTO: The Wrong law and the Wrong Venue" (19 June 2011) *International Institute for Sustainable Development*, online: <www.iisd.org/gsi/news/renewable-energy-subsidies-and-wto-wrong-law-and-wrong-venue>.

"whether the ostensible 'subsidy' addresses some legitimate problem."[84] Essentially, this brings into question the applicability of current international trade laws to the current day problem of climate change. Thus, for Sykes, the competitive "disadvantage" that governmental measures confer should also be calculated in the determination of a subsidy.[85] Measures that relieve the polluter of the cost of pollution are said to be distorting irrespective of whether they are targeted environmental abatement initiatives (recognizing that not all abatement initiatives are pollution free), owing to a violation of the Polluter Pays Principle.[86]

There are two schools of thought as to whether a WTO exception should be meted out for climate change abatement strategies. Some economists view climate change abatement trade strategies as fundamentally "protectionist" and are unsupportive of creating exceptions under the WTO.[87] Alternatively, national policies and strategies are also touted for promoting environmental goals associated with climate change.[88] The WTO's Dispute Settlement Body clearly recognizes that protectionism constitutes any domestic law and regulation favouring national industries over foreign ones. The role of international environmental law includes the facilitation of environmental protection and global sustainable development while upholding the rights of States to pursue trade free of arbitrary and discriminatory trade practices, and where policy imposes a minimal trade distortion.

There is clear recognition in the literature that international trade treatise need to be reconceived to account for climate change abatement

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84 Sykes, "Economics of the WTO Rules", *supra* note 75 at 28.

85 Allen O Sykes, "The Questionable Case for Subsidies Regulation: A Comparative Perspective" (2009) Standford University School of Law: Law and Economics Research Series Paper No 380.

86 David W Pearce and R Kerry Turner, *Economics of Natural Resources and the Environment* (Baltimore: John Hopkins University Press, 1990).

87 Aaron Cosbey & Petros C Mavroidis, *A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: the Case for Redrafting the Subsidies Agreement of the WTO* (2014) Robert Schuman Centre for Advanced Studies Global Governance Programme: EUI Working Paper RSCAS 2014/17, online: <www.cadmus.eui.eu/bitstream/handle/1814/29924/RSCAS_2014_17.pdf?sequence=1>.

88 IPCC, *Renewable Energy Source and Climate Change Mitigation*, Special Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2012), online: <www.srren.ipcc-wg3.de/report>.

goals. In this regard, it has also been argued that there should be some sort of "environmental goods" legislation that eliminates environmental tariffs.[89] Similarly, there is support for WTO treaties that balance environmental needs with international trade law.[90] Other scholars propose a solution that creates international environmental governance administered through the United Nations, replacing the existing "toothless treaties" currently in existence.[91] Authors like James Speth view the past environmental treaties, such as Kyoto, as lacking substance and devoid of enforcement and implementation provisions. Instead, Speth advocates for movement away from voluntary environmental treaties towards more substantive agreements with strong economic implementation measures.[92] This transition requires assistance for local governments to address global environmental problems. In opposition to an international governance structure under the United Nations, some pundits argue that such a structure gives rise to splinters of interest groups that will further complicate the regulatory process. The issue of energy has been viewed as so crucial to development that some scholars advocate for a separate international agreement that addresses global energy issues.[93]

The issue of pricing environmental externalities in trade raises questions about the classification of subsidies. Cosbey and Mavroidis extrapolate on the problem of full costing in their example of wind production, and note the following:

> The price paid to the conventional producers typically does not factor in the environmental damage done by their production, and the price paid to the wind power producer would not factor in the social benefits of avoided environmental damage. As such, from society's perspective the free market solution would see a sub-optimal level of wind power production. Subsidies such as FITs can remedy

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89 B G Janzen, "The Cleantech Subsidy Wave: A New Source of Trade Conflict?" (2010) 39:3 Intl L News.

90 Andrew Guzman, "Global Governance and the WTO" (2004) 45 Harv Intl LJ 303.

91 James Gustave Speth, *Red Sky at Morning and the Crisis of the Global Environment* (New Haven: Yale University Press, 2004) at 116.

92 *Ibid.*

93 Thomas Cottier et al, *Energy in WTO and Policy* (Geneva, Switzerland: NCCR Trade Regulation), online: <www.wto.org/english/res_e/publications_e/wtr10_forum_e/wtr10_7may10_e.pdf>.

> this by working to equate the social benefits derived from wind power to the private returns going to the producer.[94]

Thus, to determine whether a true subsidy exists, and whether there is a trade distorting effect, the environmental cost of production must be considered. This means accounting for the environmental damage caused by traditional high fossil fuel production, as well as the damage avoided by green energy products. There is also a body of literature suggesting that a subsidy is an effective instrument to address market failures associated with environmental externalities.[95]

Further, subsidies could be analyzed from a micro level, examining each national project and incentive, or from a macro level which explores the overall global impact of pollution. Nobel laureate economist Joseph Stiglitz suggests that countries that fail to price the cost of pollution in their products are effectually subsidizing producers and their products.[96] According to Stiglitz, a subsidy may result from a failure to tax externalities. He explains this omission as follows:

> Except in certain limited situations (like agriculture), the WTO does not allow subsidies obviously, if some country subsidizes its firms, the playing field is not level. A subsidy means that a firm does not pay the full costs of production. Not paying the cost of damage to the environment is a subsidy, just as not paying the full costs of workers would be.[97]

Stiglitz argues that the issue of costing externalities is so serious that charges should be brought by signatories of the Kyoto Protocol against the US for unfair subsidies emanating from subsidizing pollution.[98]

The efficacy of environmental subsidies has also been brought into question by several governmental authorities.[99] Prior to the WTO and its

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94 Cosbey & Mavroidis, *supra* note 87 at 44.

95 Aaron Cosbey, "Green Industrial Policy and the World Trading System" (2013) Entwined Issue Brief 17, online: <https://www.iisd.org/sites/default/files/publications/entwined_brief_green_industrial.pdf>.

96 Joseph E Stiglitz, "A New Agenda for Global Warming", (2006) 3 Economist's Voice 1; See also Jagdish Bhagwati & Petros Mavroidis, "Is Action Against US Exports for Failure to Sign Kyoto Protocol WTO-Legal?" (2007) 6:2 World Trade Rev 299.

97 Stiglitz, *supra* note 96 at 2.

98 *Ibid.*

99 Joe Kirwin, "EU Energy Executives Blame High Prices on Wind, Solar Subsidies, Seek to End Them" (15 October 2013) Bloomberg BNA Daily Report for Executives at A-3; David Levine & Pam Walter, "Wave of Trade Disputes Complicates Global Market for

dispute settlement system, environmental sustainability was often addressed through the Polluter Pays Principle which maintains that the polluter should internalize the cost of pollution in their product and production costs.[100] Thus, the 1970s focused on governmental policies that discouraged government intervention in assisting with the cost of pollution prevention. Under the *GATT*, the focus was more on taxing the bad behavior as a form of punishing the cost of environmental externalities.[101] The Organization for Economic Cooperation and Development ("OECD") also supported the principle that the government should not bear the cost of environmental externalities by invoking tax incentives and subsidies.[102] The view that governments should not attempt to intervene in the market, in a way to offset the costs of environmental pollution, was prevalent for decades until the early 1990s.[103]

Fossil fuels remain the cheaper alternative and the environmental externalities caused by this choice are not factored into the price. It has been argued that the difference in pricing of renewable energy and fossil fuels is attributable to the "the lack of internalization of these positives and negative externalities", causing renewable energy to become "less competitive than fossil fuel".[104] Subsidies, therefore, act as a correction for the distortion causing renewable energy to be priced higher than fossil fuels; in this regard, subsidies merely "level the playing field."[105] However, projects that support the income of profits that green energy producers make from high capital

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Renewable Energy Firms, Particularly Solar Sector" (19 February 2013) Bloomberg BNA Daily Report for Executives.

100 Sanford E Gaines, "The Polluter-Pays Principle: From Economic Equity to Environmental Ethos" (1991) 26:3 Texas Intl LJ 463.

101 Pearson, *supra* note 69.

102 OECD, Recommendation of the Council on the Implementation of the Polluter-Pays Principle, 14 November1974, C(74)223, para III(I), (2).

103 *Energy Charter Protocol on Energy Efficiency and Related Environmental Aspect*, 17 December 1994, 2080 UNTS 100, art 6(3), online: <www.energycharter.org/fileadmin/DocumentsMedia/Legal/1994_PEEREA.pdf>.

104 Luca Rubini, "The Subsidization of Renewable Energy in the WTO: Issues and Perspectives" (2011) NCCR Working Paper 2011/32l at 6.

105 *Ibid*; See also C Beaton & T Moernhout, "A Literature Review on Subsidies to Electricity from Renewable Energy Sources: (2011)" NCCR Working Paper No 2011/63, 8, online: <www.nccr-trade.org/fileadmin/user_upload/nccr-trade.ch/wp5/5.5a/A%20literature%20review%20on%20subsidies%20to%20electricity%20from%20renewable%20energy%20sources._01.pdf>.

investments like photovoltaic solar energy plants could be under attack. Without a specific reference to the non-actionable subsidy, the *SCM Agreement* would likely classify a FIT Program as an "income price support" or as a financial contribution giving rise to a subsidy. Since this matter was not addressed by the Appellate Body in the *Canada – Renewable Energy* case, the future of feed-in tariffs and the prices set to encourage renewable energy usage may be subject to future WTO challenges.

In December 2015, the Paris Climate Change Conference (COP21) was held and participating States were required to submit their own voluntary pledges, known as Intended Nationally Determined Contributions (INDC). These pledges later formed the Nationally Determined Contributions (NDC) that countries would be bound to under the Agreement. These voluntary targets emerged out of the "Lima Call to Action," wherein "common but differentiated responsibilities" were recognized over the top-down approach of the Kyoto Protocol.[106] The Paris Agreement goes beyond previous international climate change regimes in its recognition of both mitigation and adaptation mechanisms. Article 7.2 recognizes the that developing nations are "particularly vulnerable to the adverse effects of climate change"[107] and therefore encourages the enhancement of "adaptive capacity, strengthening resilience and reducing vulnerability to climate change".[108] Given the financial challenges that developing countries currently face under existing climate regimes, additional requirements may exacerbate already pre-existing pressures.

The *Paris Agreement* also contains flexibilities that respond to the hardship that developing countries may encounter in meeting their climate change commitments. These hardship provisions include: a finance mechanism (Article 9), technology transfer mechanism (Article 10), capacity building (Article 11), education and knowledge transfer (Article 12), and an enhanced transparency provision (Article 13). Specifically, the language of the *Paris Agreement* includes references to "incentives", which may also raise questions about whether environmental initiatives constitute a "subsidy"

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[106] Lima Call for Action (Decision -1-CP.20), online: <https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf>.

[107] UNFCCC (COP21), *Paris Agreement*, art 7.2, online: <www.unfccc.int/paris_agreement/items/9485.php> [*Paris Agreement*].

[108] *Ibid.*

under international law. For example, the Reduced Emissions from Deforestation and Degradation ("REDD") initiatives in Article 5 of the Agreement, explicitly states the following:

> Parties are encouraged to take action to implement and support, including through **results-based payments**, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and **positive incentives** for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon.[109]

Despite the specific reference to REDD in Article 5.2, renewable energy projects easily fit into the REDD scheme in their aim to alter reliance upon fossil fuels that deplete forest resources by encouraging the use of alternative energy sources. Therefore, the *Paris Agreement* does not resolve issues around whether programs like FIT will be deemed a subsidy, especially if they are addressing regional disparity issues that are exacerbated by international climate change regimes.

The *Paris Agreement* is also replete with language that may be interpreted as supportive of subsidies; such terms include references to "contributions," "incentives," and "support" mechanisms not yet tested against the *SCM Agreement* and the *GATT* 1994. For example, Article 2 of the *Paris Agreement* establishes the goal of holding "the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels".[110] There are several mechanisms, incentives and supports that are touted as means of achieving this objective. Some of the provisions under consideration are highlighted below in Figure 1.

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109 *Paris Agreement*, *supra* note 107 at art 5.2 [emphasis added].

110 *Ibid*, art 2.

Figure 1: *Summary of the Paris Agreement Subsidies Reference*

Paris Agreement	Provision
Article 5.2	"Parties are encouraged to take action to implement and **support, including through results-based payments**, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and **positive incentives** for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of **incentivizing**, as appropriate, non-carbon benefits associated with such approaches."
Article 4.6	"A mechanism to **contribute** to the mitigation of greenhouse gas emissions and **support** sustainable development is hereby established… to the Paris Agreement, and shall aim: (a) To promote the mitigation of greenhouse gas emissions while fostering sustainable development; (b) To **incentivize** and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities authorized by a Party;"
Article 7.6	"Parties recognize the importance of **support** for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change."
Article 9.1	"Developed country Parties **shall provide financial resources** to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention."
Article 9.3	"As part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the **significant role of public funds**, through a variety of

	actions, **including supporting country-driven strategies**, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts."
Article 10.6	"**Support, including financial support**, shall be provided to developing country Parties for the implementation of this Article, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation. The global stocktake referred to in Article 14 shall take into account available information on efforts related to support on technology development and transfer for developing country Parties."

These provisions raise questions regarding the applicability of the *Paris Agreement* to existing WTO obligations. Under Article 1.1 of the *SCM Agreement*, a scheme that is deemed to be a "financial contribution by a government or a public body within the territory of a Member", or "any form or income or price support", is deemed to be a subsidy if (1) a "benefit is conferred" and (2) it bears the following attributes:

> (i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
> (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);
> (iii) a government provides goods or services other than general infrastructure, or purchases goods;
> (iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;[111]

Thus, while the *Paris Agreement* incentivizes cooperation, financial supports, contributions from developed nations to developing ones, as well as from governments, in furtherance of mitigation and adaptation policies,

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[111] *SCM Agreement*, *supra* note 1 at art 1.1.

there are no guarantees that these provisions will not be challenged under the *GATT* and the *SCM Agreement*.

III. THE CANADA RENEWABLE ENERGY/FIT CASE STUDY

The *Canada Renewable Energy/FIT* Case is the only WTO dispute that has adjudicated the issue of green energy subsidies within the context of the *SCM Agreement* and international trade laws. While the conditions that give rise to an industrialized nation's reliance on subsidies to facilitate renewable energy production differ from those of the developing world, the *Canada Renewable Energy/FIT* case has far reaching implications for international law.

The dispute in this case arose from regulatory changes facilitating a FIT scheme in Ontario, Canada. The Ontario *Green Energy and Green Economy Act* established the FIT Program in 2009 under the auspices of the Ontario Power Authority.[112] The energy policy was created pursuant to the *Electricity Act* of 1998, as amended by the *Green Energy and Green Economy Act* of 2009.[113] The Ontario FIT Program guaranteed the price in kWh at which the Ontario government would purchase power under a 20 to 40 year Power Purchase Agreement. The issue for the Panel and the Appellate Body was whether the feed-in tariff constituted a subsidy pursuant to Article 1 of the *SCM Agreement*, which defines subsidies within the context of requiring a "financial contribution by a government or by any public body" that includes "any form of income support or price support" and where a "benefit is conferred".[114] Accordingly, the Panel explored whether the FIT Program was discriminatory in regards to its local content requirements and, consequently, in contravention of the *SCM Agreement*, *TRIMs* and the *GATT* 1994.[115]

The *Canada Renewable Energy/FIT* case was initiated by Japan's complaint against Canada, which was later supported by the United States and the European Union in September 2010. The WTO conveyed a Panel

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112 *Green Energy and Green Economy Act*, 2009, SO 2009, c12, Sch B II 7 (1), online: www.ontario.ca/laws/statute/s09012.

113 *Ibid.*

114 *SCM Agreement*, *supra* note 1 at art 1.

115 *Canada Feed-in Tariff Program* (Panel Report), *supra* note 17 at paras 3.2, 3.4.

to adjudicate the complaint in June 2011, and the European Union made a similar request in August 2011, resulting in two panels hearing the disputes.[116] Canada maintained that the FIT Program should be exempt from *SCM Agreement* requirements on the basis of its intended purpose as a government procurement program to facilitate affordable renewable energy usage in Ontario.[117] Both panels found Canada in contravention of the *GATT* and *TRIMs* on grounds that the FIT Program's local content requirements were discriminatory. However, they were inconclusive on the issue of subsidy. As discussed below, the Appellate Body later found that the local content requirements infringed the MFN status of the *GATT*, but entirely omitted a decision as to whether the FIT Program, in general, constituted a subsidy under the *SCM Agreement*. The finding of fact that the local content requirements contained in the FIT scheme constituted a subsidy contrary to the *SCM Agreement* posed little legal controversy.

Canada appealed the decision in February 2013. On May 6, 2013, the Appellate Body held that Ontario's FIT Program was inconsistent with two international treaties to which Canada was a signatory (the *TRIMs Agreement* and Article III of the *GATT*).[118] The *Canada-Renewable Energy/FIT* cases are the only decisions to date that have been rendered at the Appellate level.[119]

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116 *Canada – Renewable Energy/FIT Cases*, *supra* note 17; Note also that the European Union also requested consultation resulting in a second Panel in 2012. Third Party status was also filed by Australia, Brazil, China, Chinese Taipei, El Salvador, Honduras, India, Japan, Korea, Mexico, Norway, Saudi Arabia, Turkey, and the United States.

117 *Ibid.*

118 WTO, *Appellate Body Issues Reports on Renewable Energy Dispute*, (2013), online: <www.wto.org/English/news_e/news13_e/412_426abr_e.htm>. Two reports were issued on the same day, namely: Appellate Body Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector, Canada – Measures Relating to the Feed-in Tariff Program*, (2013) WTO Doc WT/DS412/AB/R, WT/DS426/AB/R (6 May 2013), adopted May 23, 2013.

119 WTO, *Canada – Certain Measures Affecting the Renewable Energy Sector*, WTO Doc WT/DS412/AB/R, online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds412_e.htm>. WTO, *China – Measures Concerning World Power Equipment* (2010), WTO Doc WT/DS419/1, online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds419_e.htm>; WTO, *China – Measures Concerning World Power Equipment* (2010), WTO Doc DS/419, online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds419_e.htm>; WTO, *Canada – Measure Relating to Feed-in Tariff Program*, WTO Doc WT/DS426/AB/R (Appellate Body Report), online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds412_e.htm>.

The Appellate Body considered two primary issues. First, it questioned whether the local content requirements of the FIT scheme constituted a subsidy. Second, it considered whether the FIT program conferred a "benefit" to electricity producers within the meaning of the various WTO Agreements. In *Canada – Measures Affecting the Export of Civilian Aircraft*, the WTO Panel found that a benefit is conferred by a country "when it confers an advantage on the recipient relative to applicable commercial benchmarks, i.e., when it is provided on terms that are more advantageous than those that would be available to the recipient on the market."[120] This definition brings into question renewable energy FIT programs that guarantee premium prices for renewable energy. While the Appellate Body in the *Canada Renewable Energy/FIT* case upheld the decision to prohibit local content requirements, it reversed the finding that FITs conferred a "benefit" to electricity producers.[121] Despite this finding, the Appellate Body did not explicitly state that FITs were a legal subsidy. In fact, the WTO decision does not give any future guidance for the future of government-supported renewable energy projects.

That the more contentious issue of subsides was left undecided by the Appellate Body has led to criticism among trade and environment scholars. Authors Aaron Cosbey and Petros Mavroidis argue that the *Canada Renewable Energy/FIT* WTO decision has created a very murky outcome: "[t]he reader of the reports is left with the impression that the WTO adjudicating bodies felt that it was necessary to engage in legal acrobatics in order to avoid finding that a scheme aimed at promoting a public good – the underlying feed-in tariff for renewable energy – was in fact a subsidy."[122] Cosbey and Mavroidis express criticism that the WTO judges were possibly guilty of inventing the law, rather than administering the treaties. This criticism seems to only be partly accurate since the first issue of the MFN status was clearly decided within the context of the *GATT* and *TRIM*s. In this regard, Cosbey and Mavroidis' concern as to whether the "WTO courts have behaved as agents called to apply a law decided by their principals, or whether they re-invented themselves as principals and decided what the law

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120 WTO, *Canada – Measures Affecting the Export of Civilian Aircraft* (1999), WTO Doc WT/DS70/R (Panel Report) [*Canada – Measures Affecting the Export of Civilian Aircraft* (1999)].

121 *SCM Agreement*, *supra* note 1 art 14.

122 Cosbey & Mavroidis, *supra* note 87 at 12.

should be" does not seem to be applicable to the non-determination of the FIT scheme as a subsidy. Cosbey and Mavroidis also argue that "the WTO *SCM Agreement* must be redrafted to account for the rationale of subsidies".[123] They note that the current problems of ambiguous subsidies need to be fixed and call for the "WTO Membership to stand up and respond to the call of duty."[124] Cosbey and Mavroidis are correct in that the WTO courts have not clarified whether FIT would remain an actionable subsidy or if the *SCM Agreement* should consider the two classes of subsidies within the context of the environment.[125]

The problem with the WTO's failure to render a decision on whether the FIT Program is a subsidy may not have as far reaching implications on industrialized nations like Canada that have an oversupply of energy.[126] However, where developing nations, like those in sub-Saharan Africa, have chosen a green energy path to development, unclear international laws may impact on the ability to commit financiers to a project. The balance of this paper will be dedicated to exploring the potential impact on the *Canada Renewable Energy/FIT* decision on the developing world. The fact that green energy subsidies will likely meet the requirement of a subsidy within the meaning of the WTO (since they are specific and may have adverse effects), may call for a specific legal principle separate from traditional subsidies. An examination of the three requirements to an actionable subsidy actually highlights the very reason why flexibilities may need to be carved out from environmental subsidies to facilitate a green path to regional development. These flexibilities will clearly demark the non-actionability of subsidies aimed at correcting environmental distortions typically considered discriminatory under the *GATT*. The reasoning in the *Canada Renewable Energy/FIT* decision lays the foundation to assess whether green energy programs may be at risk of being attacked through a WTO challenge.

There is some support for the incorporation of the *GATT* XX provisions in the *SCM Agreement*.[127] While it is highly possible that the *SCM Agreement*

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123 *Ibid.*

124 *Ibid.*

125 *Ibid.*

126 *Ibid.*

127 Luca Rubini, "Ain't Wastin' Time No More: Subsidies for Renewable Energy, the SCM Agreement, Policy Space, and Law Reform" (2012) 15 J Intl Eco L 525 [Rubini, "Ain't Wastin' Time No More"]; Aaron Cosbey, "Renewable Energy Subsidies and the WTO:

can acknowledge the *GATT* exceptions, it is counterintuitive that the main international treaty on subsidies should leave the subject matter of renewable energy to be governed by another agreement.

A. Creating the Local Regulatory Infrastructure for Green Energy Initiatives

Usually, the regulatory framework for energy is radically transformed in a developing country before a green energy project can be introduced. For example, in Ghana, this process began in 2011 with the enactment of Ghana's *Renewable Energy Act* (2011).[128] The Bill itself, and the implementation of a feed-in-tariff system, were largely modeled on the hydro system in Ontario Canada. This was a part of a wider policy that the World Bank and the IMF maintained would make Ghana more attractive to foreign investors. Recall that, in 2009, Ontario enacted the *Green Energy and Green Economy Act* which created the regulatory framework for the FIT Program.[129] The Ontario Power Authority (OPA) was designated as the agency that would set tariffs and assign energy contracts.[130] The FIT scheme arrangement whereby governments traditionally pay a fixed price—potentially a premium cost in order to "support" the usage of renewable energy—has been classified as a "price support" and arguably a subsidy. The Appellate Body clearly sanctions subsidies that arise from domestic content requirements, and, while there are issues to be raised about how that decision will impact developing nations (for example in relation to the domestic content requirements), such analysis will not be entertained herein.[131] Instead, this section of the paper will explore the narrow issue of subsidies as they relate specifically to FITs.

The Wrong Law and the Wrong Venue, Subsidy Watch" (19 June 2011), *Global Subsidies Initiative*, online: <https://www.iisd.org>; Robert Howse, *Climate Mitigation Subsidies and the WTO Legal Framework: A Policy Analysis* (Winnipeg, Manitoba: International Institute for Sustainable Development, 2010); Mark Wu & James Salzman, "Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy" (2013) 108 Nw UL Rev 401.

128 *Ghana Renewable Energy Act*, *supra* note 12.

129 *Green Energy and Green Economy Act*, *supra* note 112.

130 *Ibid.*

131 There are a number of Request for Consultations that address the issue of domestic content requirements, see: *Canada Renewable Energy/FIT* (Appellate Body Report) *supra* note 17; Request for Consultations, *United States – Countervailing and Anti-Dumping*

Under the Ghana FIT program, energy generated through renewable energy sources like solar photovoltaic (PV) electricity are guaranteed a price per KWh for electricity delivered to a local grid. These terms are usually outlined in a Power Purchase Agreement. Contracts of this nature are often entered into by the Electricity Commission of Ghana and independent power producers.[132] Ghana currently has a number of mechanisms that could be challenged as financial supports or a subsidies under the *SCM Agreement*. This includes subsidies, favorable tax incentives and policies, pricing mechanisms such as the FIT Programs, and other rewards and local content requirements that may be introduced by local governments.

The financial support is not concentrated in one industry or sector, but can be found in reduced value added taxes, research and development incentives, and incentives to develop local projects. The *Ghana Renewable Energy Act, 2011*[133] for example, promotes the development of renewable energy technologies[134] and funds research and project construction in the renewable energy sector.[135] The *Act* designates the Public Utilities Regulatory Commission as the overseer and issuer of rates and "charges for grid connection" along with rates for "electricity from renewable energy sources."[136] The *Energy Commission Act, 1997* gives authority to the Energy

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Measures on Certain Products from China (US – Countervailing and Anti-Dumping Measures) (2013), WTO Doc WT/DS449/1, G/L/1001, G/SCM/D92/1,G/ADP/D95/1, panel composed 4 March 2013; Request for Consultations, *European Union and Certain Member States – Certain Measures Affecting the Renewable Energy Generation Sector (EU – Renewable Energy)* (2012), WTO Doc WT/DS452/1, G/L/1008, G/SCM/D95/1,G/TRIMS/D/34, online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds452_e.htm>; Request for Consultations, *India – Certain Measures Relating to Solar Cells and Solar Modules (India – Solar Cells and Modules)* (2013), WTO Doc WT/DS456/1, G/L/1023, G/TRIMS/D35, G/SCM/D96/1; *India – Certain Measures Relating to Solar Cells and Solar Modules (India – Solar Cells and Modules)* (2016), WTO Doc DS/456 Panel Report (under appeal), online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm>.

132 Electricity Company of Ghana, online: <www.ecgonline.info/index.php/about-the-power-sector-in-ghana.html>.

133 *Ghana Renewable Energy Act, supra* note 12; See also the *Energy Commission Act, supra* note *12*.

134 *Ghana Renewable Energy Act, supra* note 12.

135 *Energy Commission Act*, 1997 (Act 541), online: <www.energycom.gov.gh/files/ACT.pdf> [*Energy Commission Act*, 1997].

136 *Ghana Renewable Energy Act*, *supra* note 12 s 5.

Commission to "regulate and manage the utilization of energy resources in Ghana and co-ordinate policies in relation to them."[137] This includes issuing energy licenses and formulating national policies for the development and utilization of energy resources including renewable energy, solar, wind and biomass.[138] The Ghana Public Utilities Regulatory commission ("PURC") is an independent body responsible for "charges for the supply, transportation and distribution of natural gas services."[139] PURC operated under the *Public Utilities Regulatory Act*, 1997 (Act 538) and sets the tariff rates for energy pursuant to section 16 of the *Act*.[140] GRIDCo, which was established under the *Energy Commission Act, 1997*, is a private limited liability company that is responsible for the equitable dispatch and transmission of electricity generated by wholesale suppliers to the Grid.[141] These new regulatory bodies were enacted to facilitate relative energy to the Ghanaian public.

Whether the *Canada Renewable Energy/FIT* case will inhibit the implementation of a FIT scheme in a developing nation like Ghana, is still to be tested. In assessing whether the feed-in tariff program would constitute a subsidy in accordance with the WTO *Canada Renewable Energy/FIT* decision, three criteria must be met. The three-part test under the *SCM Agreement* is summarized as follows:

1. Does the subsidy produce a "financial contribution by a government or any public body"[142]

2. Is the subsidy specific to a particular industry[143]

3. Does the subsidy have an adverse effect...[144]

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137 *Energy Commission Act*, 1997, *supra* note 135.

138 Ghana Energy Commission, Mandate and Functions, online: <www.energycom.gov.gh/index.php/mandate-and-functions>.

139 Ghana Public Utilities Commission, online: <www.purc.com.gh/>.

140 *Public Utilities Regulatory Act*, 1997 (Act 538), online: <www.purc.com.gh/purc/purc/Legislation/PURCAct538>.

141 GRIDCo, online: <www.gridcogh.com/en/about-us/overview.php>.

142 *SCM Agreement*, *supra* note 1 art 1.1(a)(1).

143 *Ibid*, art. 2.1(b).

144 *SCM Agreement*, *supra* note 1 art 3.1(b); See also the local content requirements: Jan-Christoph Kuntze & Tom Moerenhout, "Local Content Requirements and the Renewable Energy Industry: A Good Match?" (International Center for Trade and

If the tripartite test above is answered affirmatively, then the subsidy is actionable and could invoke a challenge by a Member State within the WTO. Currently, there is no specific mechanism to protect green energy programs within international law. If the FIT Program were to be challenged, the complainant would have to first establish that the newly created PURC, the entity that fixes the tariff, is a government entity under Article a.1(a)(1) of the *SCM Agreement*. A government entity is defined as a "public body" which "exercises authority vested in it by a government".[145] The WTO Appellate Body has defined a public body as: "an entity that possesses, exercises or is vested with governmental authority. Yet, just as no two governments are exactly alike, the precise contours and characteristics of a public body are bound to differ from entity to entity, State to State, and case to case."[146] Thus, for the *SCM Agreement* to apply, a public body must be the subject of the complaint. Green subsidies not procured by government agencies would not be subject to attack. However, pursuant to Article 1.1(a)(1)(iv) of the *SCM Agreement*, an entity may still be deemed a subsidizer if it promotes renewable energy products and was directed by a government to do so.[147]

B. The Application of the Canada Renewable Energy/FIT case to Green Energy Projects in Sub-Saharan Africa

Many countries in sub-Saharan Africa are beginning to implement energy solutions. These solutions include low-carbon policies that may subsidize, through FITs, the cost of renewable energy alternatives. Among the ECOWAS region, Ghana has the second largest number of inhabitants, exceeded only by Nigeria. While Nigeria's energy system and needs would produce a unique case study, their system is based on a more complex interaction between federal regulations and state and traditional entities. Ghana implemented the regulatory framework, similar to that of Ontario,

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Sustainable Development, 2013), online: <http://unctad.org/meetings/en/Contribution/DITC_TED_13062013_Study_ICTSD.pdf>.

145 *SCM Agreement*, *supra* note 1 at art 1.1(a)(1).

146 WTO, *United States – Definitive Anti-dumping and Countervailing Duties on Certain Products from China* (2011), WTO Doc EY/FD379/SB/R (Appellate Body Report) at para 317.

147 *SCM Agreement*, *supra* note 1 at art 1.1(a)(1)(iv).

Canada, to facilitate renewable energy investments and projects. For the transition to renewable energy to occur, the regulatory framework must lay a suitable foundation—this has already been achieved in Ghana. Note that, prior to the implementation of Ontario's FIT Program, the province adopted new renewable energy laws that facilitated green energy projects. Thus, aside from any infringing local content requirement, FITs must be preceded by a regulatory framework that establishes an alternative renewable energy supply-mix as an alternative to fossil fuels.

1. Does the FIT Program Confer a Financial Contribution: Relevant Market Considerations?

The first requirement to challenge a green energy subsidy is that the initiative must produce a financial contribution. In assessing whether there is a *financial contribution* by a government or public body which *benefits* the recipient within the meaning of Article 1.1(a)(1) of the *SCM Agreement*, the following four criteria must be met:

> (i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
> (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);
> (iii) a government provides goods or services other than general infrastructure, or purchases goods;
> (iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments.[148]

Financial Contribution refers to not only the direct transfer of funds, but also an income or price support, as in the case with a FIT. The *Canada Renewable Energy/FIT* case clarifies that energy products, and specifically renewable energy supply, fall within the definition of goods under the *SCM Agreement*. The purchase of the energy by a government for redistribution to the public in a FIT system would usually constitute a financial contribution, especially if it is purchased below market value and for a fixed

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[148] *SCM Agreement*, *supra* note 1 art 1.1(a)(1). See also, *Canada-Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 at paras 2.86–2.93 & 5.116–5.139.

price. Thus, while the Panel concluded that the FIT Program was designed "with a view of commercial resale", it still falls outside of Article III:8(a).[149]

The test for financial contribution requires a market analysis and evidence that those favourable terms were not available in the "relevant market". The Panel decision was upheld by the Appellate Body which created a distinction between government intervention that creates markets and one that intervenes in pre-existing markets.[150]

Most renewable energy projects are creating a market rather than competing in an existing market and, therefore, may avoid the finding of an adverse effect for the initial project. However, where the market has been already created, future projects run the risk of contravening Article 1.1 of the *SCM Agreement*.

The issue of pre-existing markets was addressed in response to the European Union and Japan argument that, as the wind and solar photovoltaic electricity market would not have existed without the FIT Program, the Canadian government conferred a benefit energy suppliers. However, the Appellate Body found that the FIT did not constitute a benefit, as no comparable market existed to confer an advantage. A benefit could not be conferred to a new producer where there was no prejudice to an existing producer. One Panelist dissented in favour of the "but-for" test, claiming that the standard should be that the renewable energy market would not have existed without the FIT scheme. The majority found that the relevant market must be wind and solar PV electricity specifically, rather than the entire electricity market.[151] Furthermore, the fact that the FIT Program created the market is not sufficient to find a subsidy.

Other cases like the *Canada Aircraft* case that consider how the term "benefits" should be applied to the local conditions would also likely stand for the proposition that implementing a FIT in developing region like Ghana would not conferred a "benefit" to beneficiaries like Independent Power Producers under such programs. The complainant's industry must suffer serious prejudice.[152] A benefits analysis would clearly demonstrate that no "advantage on the recipient relative to applicable commercial

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149 *Canada-Renewable Energy/FIT* (Panel Report) *supra* note 17at para 7.152.

150 *Canada-Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 at para 5.188.

151 *Canada Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 para 5.178.

152 *Canada – Measures Affecting the Export of Civilian Aircraft* (1999), *supra* note 120.

benchmarks" would be conferred on the independent energy producer.[153] This finding is also based on the fact that the region is plagued with energy insecurity issues and, as such, the FIT Program could not provide "terms that are more advantageous than those that would be available to the recipient on the market."[154]

The *Canada Renewable Energy/FIT* decision is important to environmental strategies, as it would permit the setting of national targets as promoted at the 2015 United Nations Climate Change Conference (Paris COP 21), and would allow governments to create markets to meet these objectives.[155] In addition, new markets can be defined to attach to certain environmental targets. This could include, for instance, a market aimed at reducing CO^2 emissions for fossil fuel reliance based on certain targets. Currently, if renewable energy subsidies like those potentially arising from FIT schemes are challenged at the WTO, a panel would have to decide on public policy grounds if the project is of benefit to the local environment. This analysis would require an assessment of the "relevant markets" which, in the developing world, is usually an undeveloped renewable energy market. The panel with expertise in international issues may not have the specific knowledge to address particularities within local environments including which benefits are justified within a particular country. For example, will a local content requirement, or the need for subsidy, in a developing nation like Canada differ from a local content requirement in a country undergoing development and battling high rates of unemployment, like Ghana? The Appellate Body also identified a policy reason to support renewable energy programs and justify their inclusion as non-actionable subsidies: "fossil fuel resources are exhaustible and thus fossil energy needs to be replaced progressively if electricity supply is to be guaranteed in the long term."[156] Despite numerous findings that green energy subsidies arising from FIT Programs should not be actionable, the WTO Appellate Body did not explicitly state that Article 8 of the *SCM Agreement* should be reconsidered for reinstatement.

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153 *SCM Agreement*, *supra* note 1 art 14.

154 *Canada – Measures Affecting the Export of Civilian Aircraft* (1999), *supra* note 120.

155 United Nations Conference on Climate Change, COP21, online: <www.cop21paris.org/about/cop21>.

156 *Canada – Renewable Energy / FIT* (Appellate Body Report), *supra* note 17 at para 5.186.

There is definitely a need for concrete laws on what constitutes non-actionable subsidies rather than reliance on unclear adjudicated outcomes. Despite this reality, the *Canada Renewable Energy/FIT* case only makes exception for a new market. While an infancy industry will be protected, but this may not be the case for an already established industry. The distinction "seems to have opened the door wide to infant industry protection" while arguably disadvantaging existing industries.[157] The Appellate Body clearly distinguished between a new market created by renewable energy sources and existing energy products procured by the government; it concludes that "where a government creates a market, it cannot be said that the government intervention distorts the market, as there would not be a market if the government had not created it."[158] Essentially the Appellate Body concluded that the relevant market would be the one that wind and solar market created on the supply-side by the government. Consequently, without the creation of this market by the government, it would not have existed.[159] While the issue of discrimination pursuant to Article 1 of the *GATT* has not been challenged within the context of the *Canada Renewable Energy/FIT* decision, the Appellate Body clearly created a distinction between government initiatives aimed at new industries as compared to existing ones. This distinction may create grounds for a WTO challenge where an existing industry is not afforded the same kind of concession as a new one, especially in cases where both industries have initiatives aimed at correcting market or environmental distortions. There is no bar on government policies that seem to protect the environment through the purchase of renewable energy technologies. However, if products are being used in such projects, the suppliers of those products must be treated equally irrespective of whether they are local producers or foreign manufacturers. Thus, green energy projects in the developing world may be able to rely on the exemption as outline in the *Canada RE FIT* case of "government interventions" that actually "create markets that would otherwise not exist and, on the other hand, other types of government interventions in support of certain players in markets that already exist or to correct distortions therein."[160] There is also concern that

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157 Cosbey & Mavroidis, *supra* note 87 at 26.

158 *Canada-Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 at para 5.118.

159 *Ibid* at para 5.178.

160 *Ibid* at para 5.188.

the decision is vague and opens the door to dangerous reasoning beyond the clean energy sector but may impact on other government initiatives.[161]

While the argument could be made that the FIT Program for green energy projects is in direct competition with traditional electricity, it would be sold as an alternative to traditional electricity, making it very difficult to establish distortion of an existing market. Despite this reality, the threat of a WTO challenge still looms for investors in renewable energy projects. This impending threat may pose a deterrent to nations lacking the financial means to withstand a WTO challenge. Developing nations may shy away from environmental policies vulnerable to WTO challenges. There is evidence to suggest that a nation's legal capacity, which is connected to wealth and industrialization, determines its ability to commence and withstand a WTO challenge.[162] WTO statistical data reveals an under-representation of developing nations in the WTO Dispute Settlement System. Specifically, two main theories have attempted to explain the presence of wealthier nations and absence of poorer nations from the Dispute Settlement System. The first theory highlights that larger, richer economies have more complex trade relations and necessarily "gravitate" to the WTO to settle disputes. The second explanation is that richer nations will retaliate against poorer ones advancing a complaint, thereby reducing the number of cases brought to the WTO by poorer nations. This second approach assumes that there is some level of discrimination arising from disparate legal capacities of larger economies litigating against smaller ones.[163] These theories may help to predict how developing nations may

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161 Luca Rubini, "The Good, the Bad, and the Ugly" (2014) 48:5 J World Trade 895 at 914.

162 Chad P Bown, "Participation in WTO Dispute Dispute Settlement: Complainants, Interested Parties, and Free Riders" (2005) 19:2 World Bank Economic Rev 287; Henrik Horn, Henrik, Hakan Nordstrom & Petros C Mavoirids, "Is the Use of the WTO Dispute Settlement System Biased?" CEPR Discussion Paper 2340 (London: Centre for Economic Policy Research, 1999); Marc L Busch, Eric Reinhardt & Gregory Shaffer, "Does Legal Capacity Matter? A Survey of WTO Members' Minnesota Legal Studies Research Paper No 09-31" (2009) 4 World Trade Rev; M Kim, "Costly Procedures: Divergent Effects of Legalization in the GATT/WTO Dispute Settlement Procedures" (2008) 52:3 Intl Studies Quarterly 657; James Smith, "Inequality in International Trade? Developing Countries and Institutional Change in WTO Dispute Settlement" (2004) 11:3 Rev Intl Political Economy 542.

163 *Ibid.*

react to WTO challenges regarding environmental policy initiatives like FIT schemes.

The ambiguity of the *SCM Agreement* and the WTO Appellate Body's reluctance to classify FIT as subsidies may not be in line with international climate change goals. In this regard, the *SCM Agreement* needs to be aligned with global climate change abatement goals. Specifically, Article 8 of the *SCM Agreement* could be reinstated in order to create certainty for renewable energy investors. The current standard is set by the Appellate Body's decision in *Canada Renewable Energy/FIT* case, which offers mere policy considerations but fails to entrench the intent of non-actionable renewable energy subsidies into law. A Power Purchase Agreement that contemplates fixed purchase price of energy per kWh higher than conventional prices may be deemed a subsidy. In the case with Ghana, there are very few photovoltaic solar plants and where these plants exist, they are usually under the FIT Program. As such, even if the FIT Program in developing nations is classified as a subsidy, the impact could be limited to local production so as to not offend other Member's market (assuming that the Member does not have markets in that jurisdiction).[164]

Further, the prohibition against government support in the *SCM Agreement* is counterintuitive to the goal of climate change abatement. Renewable energy alternatives are far more costly to implement than traditional high CO^2 emitting sources.[165] Consequently, government support is always needed to encourage alternative choices and to provide incentives for developers to invest in costly renewable energy projects. Thus, government support is an essential part of implementing these measures and has been argued to be the primary reason why environmental programs are initiated.[166] The type of government support that is needed is not merely financial, but also legislative. There must be regulatory framework to facilitate renewable energy production, providing tax incentives and guaranteeing the rates that energy will be purchased back at.

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164 Rubini, "Ain't Wastin' Time No More", *supra* note 127.

165 David Popp, Ivan Hascic & Neelakshi Medhi, "Technology and the Diffusion of Renewable Energy" (2011) 33 Energy Eco 648.

166 *Ibid* at 649.

2. Is the FIT Program Specific?

The second requirement for an actionable subsidy is that it limits access to "specific" groups, enterprises or industries, pursuant to Article 2 of the SCM *Agreement*.[167] In the case of a FIT program, the subsidy would always be specific to a renewable energy sector. Consequently, the second part of the test will usually be met, absent a more concrete definition of "specific".[168] This requirement can be interpreted, not as solely referring to a specific industrial activity, but rather to whether the policy is neutral and non-discriminatory. The issue of neutrality cannot be averted where a government commits to a Power Purchase Agreement with a guaranteed term and fixed tariffs. This raises questions about how the SCM *Agreement* addresses not only climate change issues, but also policies aimed at development. The Appellate Body's analysis of the "specific" criterion highlights the need for a clear concrete law establishing a non-actionable subsidy category for green energy projects. The purpose of the non-actionable subsidy exception is to allow specific subsidies to exist without the threat of countervailing measures. Hence, the requirement that an actionable subsidy be specific is counter-intuitive to climate change abatement strategies, as green subsidies are by their very nature specific to addressing environmental issues.

The "specific" requirement gives rise to numerous paradoxes as it relates to non-actionable studies and the environment. The social utility of green energy programs was also highlighted in the Appellate Body decision: "governments might provide monetary incentives to a few enterprises (*specific* contributions) in order for the society at large to enjoy clean air; they do not have to provide monetary incentives to the whole society (non-specific) to achieve this goal."[169]

The Appellate Body appears to have created policy regarding non-actionable subsidies that should be dealt with by means of amending the SCM *Agreement*. In the *Canada Renewable Energy/FIT* decision the Appellate body highlighted the need to create new environmental markets:

> Governments intervene by reducing reliance on fossil energy resources and promoting the generation of electricity from renewable energy resources to ensure the sustainability of electricity markets in the long term. Fossil energy resources

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167 SCM *Agreement*, *supra* note 1 art 2.

168 *Ibid*, arts 2.1(a), 2.2 & 2.3.

169 *Canada Renewable Energy/FIT* (Appellate Body Report) *supra* note 17.

> are exhaustible, and thus fossil energy needs to be replaced progressively if electricity supply is to be guaranteed in the long term. Government intervention in favour of the substitution of fossil energy with renewable energy today is meant to ensure the proper functioning or the existence of an electricity market with a constant and reliable supply of electricity in the long term.[170]

The specific nature of environmental subsidies requires a clear distinction between those that distort, like green energy subsidies, and those that do not. In this regard, a test needs to be developed which will enable adjudicators to separate the treatment of these subsidies. It would not be inconsistent with the *SCM Agreement* to call for a reinstatement of Article 8 of the *SCM Agreement* as the legal provision in support of environmental subsidies. Beyond reviving Article 8, there is the possibility that flexibilities could be created in existing treatise to accommodate environmental subsidies. Relaxing the *GATT* to contemplate green energy subsidies has been argued as more pragmatic than reviving Article 8 of the *SCM Agreement*, which may contravene the Polluter Pays Principle.[171] This would require that subsidies be renegotiated with a new rationale where the negotiators "distinguish wheat from chaff," recognizing that "subsidies can distort, as they can address distortions."[172]

The initial classification of subsidies as distorting or correcting seems to be in line with the original provisions in Article 8 of the *SCM Agreement*. Essentially, non-actionable subsidies are those subsidies that correct a pre-existing market distortion. Therefore, a subsidy that is non-distorting and also correcting, such as those intended by the FIT Programs in the developing world, are the exact initiative that should be protected under the non-actionable class of the *SCM Agreement*. The rationale of Article 8 of *SCM Agreement* was for the exact purpose of "allowing specific subsidies to stay in place without the risk of facing countermeasures."[173] The problem with the absence of flexibilities in the *SCM Agreement* is that there is no consideration for government policy initiatives aiming to promote renewable energy alternatives. While Article 25 of the *SCM Agreement* requires Member States to file annual notification of subsidies, and to disclose the policy objectives for the subsidies, no provision or classification

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170 *Ibid* at para 5.186.

171 Sykes, "Economics of the WTO Rules", *supra* note 75 at 28.

172 Cosbey & Mavroidis, *supra* note 87 at 43.

173 *Ibid* at 36.

for non-actionable subsidies are provided.[174] Government policies aimed at climate change abatement require the implementation of "specific" national green energy measures, which may run afoul of the *SCM Agreement*.

3. Does the FIT Program Have an Adverse Effect?

The final part of the test for determining whether action can be taken against a country for supporting a FIT Program is whether the subsidy has a negative effect. Thus, a subsidy may not be actionable if, although a financial contribution and specific effect exists, it is not found to have a negative effect.[175] An "adverse effect" is defined in Article 5 of the *SCM Agreement*; both Articles 5 and 6 of the *SCM Agreement* recognize that a subsidy may have adverse effects if it causes injury to the domestic industry of another Member, or displaces or impeded imports, or significantly undercuts prices of a like product of a Member.[176]

In the *Canada Renewable Energy Case/FIT* case, the Panel and Appellate Body assessed whether the FIT Program constituted a subsidy under the *SCM Agreement*. The Appellate Body confirmed that governments may intervene in markets to encourage use of renewable energy alternatives "if, on the one hand, higher prices for renewable electricity have certain positive externalities, such as guaranteeing long-term supply and addressing environmental concerns".[177] Similarly, it was recognized that government intervention is warranted where cheap energy products create a negative externality such as adverse "impact on human health and the environment", resulting from fossil fuel energy emissions and nuclear waste disposal.[178] Cosbey and Mavroidis argue that "payment to firms that create public goods is simply payment of the full benefits conferred by the firm's actions – an internalization of external environmental costs."[179] This assessment requires redefining the "appropriate market against which to benchmark" the government intervention and clarifying to whom the benefit accrues.[180] For example, is it solely the company that is granted a contract based on

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174 *SCM Agreement*, *supra* note 1 art 25.2(iii).

175 Bigdeli, "Incentiv Schemes", *supra* note 42.

176 *SCM Agreement*, *supra* note 1 at arts 5(a), 5(c), 6.3(a), & 6.3(c).

177 *Canada Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 at para 5.189.

178 *Ibid* at para 5.189.

179 Cosbey & Mavroidis, *supra* note 87 at 36.

180 *Ibid* at 37.

guaranteed FIT rates that is benefiting, or is the beneficiary the entire society that gains from reduced pollution? Cosbey and Mavroidis further question whether the actual recipient of a benefit is the company that creates an externality by polluting or the company that is internalizing the cost of pollution by receiving a subsidy?[181] The issue of adverse effects cannot be adequately assessed without an analysis of the whole cost of production, including the cost borne for the externalities.

Similarly, the application of the adverse effect principle to environmental subsidies may also produce peculiar results where environmental costs are not considered. If Article 8 of the *SCM Agreement* were still effective, an adverse effect may not be found in situations where the subsidy was aimed at creating the public good of environmental protection or climate change abatement. The issue of adverse effect is quite muddled when one includes the cost of a negative externality like high carbon fossil fuels as compared to low CO^2 emitting renewable energy sources.

C. The Reinstatement of Non-Actionable Subsidies in the SCM Agreement

Under the WTO, a subsidy must contain a financial contribution, confer a specific benefit and have an adverse effect to be considered "actionable." The increase in green energy Request for Consultations have led some scholars to argue for the need to create applicable trade rules or, at the very least, modify existing ones.[182] Andrew Green, in as early as 2006, advocated for the replacement of the non-actionable subsidy removed from the *SCM Agreement* with a more precise category that covered environmental subsidies.[183] These subsidies would be directly related to environmental protection and would still be subject to the exception treatment in the *GATT* XX.[184] Some scholars argue that the *SCM Agreement* should contain provisions to address various aspects of subsidies that are aimed at fostering a "shift toward cleaner production alternatives" and also "environmental

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181 *Ibid.*

182 Andrew Green, "Trade Rules and Climate Change Subsidies" (2006) 5 World Trade Rev 377.

183 *Ibid.*

184 *Ibid* at 408–410.

services".[185] The specific subsidies employed by FIT Programs, whether they are for the payment of renewable energy or the use of local content requirements, would be protected under this recommendation.

It is very likely that the FIT Programs in the ECOWAS region, and specifically countries like Ghana, would survive a WTO challenge by invoking the *GATT* chapeau clause. Firstly, absent local content requirements, the program does not arbitrarily discriminate against Member States. Secondly, the program focuses on domestic energy and as such does not compete with an international energy market (in applying the "relevant market" test). Consequently, FIT Programs that focus on genuine environmental goals would satisfy the exception as set out in Article XX(g) of the *GATT*, if the Member's intent is proven purely environmental. The intent must be justifiable beyond the legitimacy of the policy. Countries like China and India, for example, that have advanced solar panel industries may not pass the "specific" threshold if it is found that the environmental policies are directly connected to the promotion of industrial policies. As such, the environmental intent contained in Article XX(g) should not be disguised or altered by economic and industrial goals. This requirement may pose some difficulty for developing nations, especially in sub-Saharan Africa, in demonstrating that renewable energy goals are not necessarily tied to the development of an ancillary local industry. The analysis of whether flexibilities in international trade agreements could be applied to FIT programs that promote regional development among least-developed and developing nations is beyond the scope of this paper, but is an issue well worth exploring.

There has also been some support for creating an independent agreement to govern renewable energy. This agreement would set permissible subsidies in the renewable energy sector and could distinguish between regional development needs through a tri-tier box system.[186] The system advocated by Virginia Hildreth would take into consideration the uniqueness of developing nations and the financial challenges that they face in meeting climate change abatement goals. Hildreth proposes that developing nations could fit into a different tier than, for example, a

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185 Franciso Aguayo Ayala & Kevin P Gallagher, "Preserving Policy Space for Sustainable Development" (2005) *International Institute of Sustainable Development* at 2.

186 Virginia R Hildreth, "Renewable Energy Subsidies and the GATT" (2014) 14:2 Chicago J Intl Law 702.

developed nation, "because of both the incredibly high need for low-cost energy and their limited existing energy infrastructure."[187] Other scholars have also argued that effective pollution control should be maintained through tight international laws that create an economic disincentive to pollute.[188]

Clearly, for the WTO to seriously consider environmental subsidies, two classifications need to emerge: the first recognizing subsidies that distort, and the second acknowledging environmental subsidies that correct distortions. The WTO should set guidelines in agreements to address the real problem, subsidies that do not address market failures, but create trade distortions. The failure to distinguish between distorting and non-distorting subsidies may impede the effective implementation of other WTO treaty provisions aimed at addressing global public concerns like climate change. Moreover, a distorting effect may differ when factors such as economic development are accounted for.

Prior to the elimination of Article 8 in 1999, the *GATT Council Meeting* of 1999 contemplated the operability of the *SCM Agreement*. In that document, the *GATT* referenced Article 8 of the *SCM Agreement* and the category of "non-actionable" subsidies as relating to "research and development, structural adjustment assistance, and environmental protection and regional aid."[189] Therefore, at that time, the non-actionable subsidy category appeared to be acceptable—it may not have been thought that this provision would one day be eliminated. While it is unclear whether the framers of Article 8 of the *SCM Agreement* contemplated its future removal, it is indisputable that there still exists a major international treaty (the *GATT*) with provisions in Article XX(b) for environmental flexibilities. While the *GATT* does not prohibit green energy initiatives, the risk of having these practices labeled a subsidy under the *SCM Agreement* remains. What is needed is a clear provision within the *SCM Agreement* that will explicitly permit green energy projects to meet environmental goals and regional development objectives.

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187 *Ibid* at 727.

188 Frederic L Kirgis Jr, "Effective Pollution in Industrial Countries: International Economic Disincentives, Policy Response, and the GATT" (1972) 70:5 Mich L Rev 859.

189 GATT Council Meeting, *supra* note 76 at 16.

The WTO *Canada Renewable Energy/FIT* decision supports the premise that nations are encouraged to undertake "new" programs to create "new markets" aimed at protecting the environment. This is in line with several international treaties that recognize the goal of environmental protection. Specifically, Article XX(b) of the *GATT* contains an exception where it is "necessary to protect human, animal or plant life or health".[190] Additionally, Article 8 of the *SCM Agreement* confirmed a "non-actionable" subsidies provision similar with a goal of environmental protection as contained in the *GATT*.[191] With the elimination of Article 8 from the *SCM Agreement*, environmental public policy exceptions need to rely on flexibilities contained in Agreements like Article XX(b)[192] including a chapeau clause that protects legitimate environmental objectives within the context of trade.[193] The chapeau clause must be used in a manner that does "not result in arbitrary or unjustifiable trade discrimination or serve as a disguised restriction on trade."[194] The Appellate Body's definition of the environment includes "exhaustible natural resources".[195] The chapeau clause permits environmental measures while prohibiting any trade abuses that affect environmental policies. Specifically, the chapeau clause cautions that unilateral trade measures "may not be used where necessary to protect human health or to promote conservation of natural resources, provided that the measures do not result in arbitrary or unjustifiable trade discrimination or serve as a disguised restriction on trade."[196]

In the *United States – Standards for Reformulated and Conventional Gasoline* ("*United States – Gasoline*"), the Appellate Body concluded that the chapeau clause must be applied in a manner treating all trade partners equally.[197] With respect to the environment, the Appellate Body held that "clean air"

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190 *Ibid* at 14.

191 *Ibid* at 16.

192 *Ibid.*

193 *GATT*, *supra* note 1 art XX.

194 Sanford E Gaines, "Considering WTO Law in Design of Climate Change Regimes Beyond Kyoto" IOP Conf Series: (2009) 8:1 Earth & Environmental Science 1.

195 WTO, *United States – Standards for Reformulation and Conventional Gasoline* (1996) WTO Doc WT/DS2/AB/R (Appellate Body Report) at 11, 12 [*US – Standards for Reformulation and Conventional Gasoline*].

196 Gaines, *supra* note 194.

197 *US – Standards for Reformulation and Conventional Gasoline, supra* note 195.

amounts to an "exhaustible natural resource".[198] The application standard as set out in *United States – Gasoline* was applied in the *United States – Import Prohibition of Certain Shrimp and Shrimp Products.*[199] In that case it was found that, regardless of the good intentions of the US ban on shrimp obtained with technology harmful to sea turtles, the mechanism was not equitably applied to all Member States. In reaching their conclusion, the Appellate Body assessed whether the measure was being "abused so as to frustrate or defeat the substantive rights of the appellees under the GATT 1994."[200] Despite the environmental concerns associated with the shrimp ban, the United States had applied the provision in an arbitrary and discriminatory manner, failing to treat all trading partners the same—an environmental objective cannot save a regulation where the requirements are not equitably applied to trade Members. Regardless, the Appellate Body recognized the legitimacy of the environmental objective pursuant to Article XX(g) of the *GATT.*[201] Furthermore, the *United States Shrimp/Turtle* case clarifies the concept of environmental goods in international law by recognizing "exhaustible natural resources" as including "living resources."[202] The Appellate Body emphasized that "Article XX(g) was *not* limited to conservation of "mineral" or "non-living" natural resources."[203] The *United States Shrimp/Turtle* case clarifies that "[w]e do not believe that "exhaustible" natural resources and "renewable" natural resources are mutually exclusive."[204]

The WTO Appellate Body decision in *United States – Gasoline*, and the *United States – Shrimp* cases reveals that a well-meaning environmental program may not be upheld if it is found to be discriminatory. An application of this principle to the *SCM Agreement* could prompt the conclusion that green energy subsidies still need to avoid application "in a

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198 *Ibid* at 11 & 12.

199 WTO, *United States – Import Prohibition of Certain Shrimp and Shrimp Products* (1998), WTO Doc WT/DS58/AB/R, DS/58 (Appellate Body Report) online: <www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm> [*United States – Shrimp/Turtle*].

200 *Ibid* at para 39.

201 *Ibid* at para 184.

202 *Ibid* at para 127.

203 *Ibid*.

204 *Ibid* at para 128.

manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade."[205] In the *Brazil-Retreaded Tyres* case, the Appellate Body concluded that a measure should be "necessary" and minimally restrictive to be saved under the *GATT* Article XX provision.[206] The *Brazil – Measures Affecting Imports of Retreaded Tyres* Appellate Body considered whether an "import ban" on tyres can be upheld under Article XX of the *GATT*.[207] An import ban is arguably far more restrictive than a subsidy, yet the Appellate Body concluded that certain "environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures".[208] Even a cost benefit analysis must be cautious because the Appellate Body notes the passage of time as a requirement to assess the effectiveness of some measures.[209] In this regard, the Appellate Body concluded that "measures adopted in order to attenuate global warming and climate change" fall into the category of initiatives that "can only be evaluated with the benefit of time."[210]

The problem with utilizing the chapeau clause is that, if the government initiative does not meet the lesser restrictive and necessary requirement as per *United States Shrimp* and *United States Gasoline*, the measure may be held in violation of the *GATT*. Even where a measure is deemed to be in furtherance of a legitimate environmental goal, the Appellate Body ruled in the *Canada Renewable Energy/FIT case* that such measures cannot amount to a subsidy where there was no pre-existing industry. This decision recognizes infancy industries and may legitimize a one- time subsidy. This would mean that the same company utilizing a FIT Program may not be granted a Power Purchase Agreement guaranteeing a feed-in tariff on the second project. Further, if a Power Purchase Agreement were obtained in this case, the project may not pass the adverse effect component, as it would no longer be a subsidy for the creation of a new market.

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205 *GATT*, *supra* note 1 art XX.

206 WTO, *Brazil – Measures Affecting Imports of Retreated Tyres*, WTO Doc WT/DS332/AB/R (adopted 17 December 2007) at para 150.

207 *Ibid.*

208 *Ibid* at para 151.

209 *Canada Renewable Energy/FIT* (Appellate Body Report), *supra* note 17 at para 5.187.

210 *Ibid* at para 151.

The nature of feed-in tariffs is such that they are often arranged by a government enterprise that also regulates the industry. These enterprises set the energy purchase price which, in the case of solar, may not be driven by market principles and is typically subsidized. In the case with the Ontario FIT system, it was alleged that these policies were discriminatory and distorted trade. Under Article XVII of the *GATT*, government enterprises must be non-discriminatory in their practices.[211] The paradox exists because, while the MFN rationale guides fair trade between nations, it does not overtly sanction or condone non-distorting subsidies like those aimed at meeting national climate change abatement goals. The reluctance to entertain the issue of non-actionable subsidies in the *Canada Renewable energy/FIT* case may be linked to the fear that if this section were reinstated, it could bring abuses. Some scholars have contemplated the negative outcome of reinstating Article 8 of the *SCM Agreement* and have concluded that the provision could be built into existing trade regimes without "inviting misuse of the exception."[212]

The notion that WTO treaties may be modified to include environmental public policy considerations is not new to green energy projects. The pharmaceutical industry also dealt with the issue of affordable medicines after it was found that *TRIPS* had an adverse effect on access to life-saving medicines in impoverished nations.[213] In the past, the WTO has made exceptions to international laws in order to promote public policy objectives such as affordable health care.[214] As per Article 27 of the *TRIPS* Agreement, a WTO Member State can not refuse to grant a patent, and international patents are recognized "in all fields of technology."[215] As the majority of WTO members were required to support *TRIPS* in order to ratify the legislation, multinationals were forced to incorporate some exceptions to Article 27(2) that would recognize countries' right to provide

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211 *GATT*, *supra* note 1 at Article XVII.

212 Cosbey & Mavroidis, *supra* note 87 at 45.

213 WTO, *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, Decision of 30 August 2003*, WTO Doc WT/L/540, 2 September 2003, online: <www.who.int/medicines/areas/policy/WT_L_540_e.pdf>; *TRIPS*, *supra* note 1 arts 30 & 31.

214 *TRIPS*, *supra* note 1 arts 30 & 31.

215 *Ibid* art 27.

necessary health care for their citizens. This exception is found in Article 31 of *TRIPS* and is known as the compulsory licensing exception.[216]

Under the *TRIPS* Agreement, nations may restrict exclusive rights and the rights to grant pharmaceutical patents. This achievement on the part of multinational corporations was only obtained by virtue of the concession that there must be "*mutual advantage of producers and users*" of the technology as contained in Article 7 of the *TRIPS*.[217] Article 8 of the *TRIPS* Agreement attempts to balance the prospect of an abuse of power by patent holders against the ability to promote the free trade in technology which may affect the ability to provide of the health care needs of citizens in developing and least-developed countries. This concern was addressed by granting developing nations the ability to produce their own medications, or import these drugs from another nation with the ability to produce them, in special circumstances under Article 30 and 31. Arguably, if exceptions of this nature can be granted to deal with the global health care crises, then flexibilities may also be implemented to combat climate change.

The reinstatement of non-actionable subsidies in the *SCM Agreement* prompts consideration as to how flexibilities addressing critical societal problems should be incorporated in WTO treaties. Just as *TRIPS* flexibilities recognize the importance of patented medicines in the lives of indigent global citizens, the *SCM Agreement* should recognize the importance of "non-actionable" subsidies related to green energy projects. The global environmental policy goal of addressing climate change can be said to be a goal that recognizes environmental subsidies aimed at offsetting the costs and risks of renewable energy projects. The issue of what constitutes a subsidy is not settled; whether initiatives like the FIT program are actually subsidies is still in dispute when contrasted with externalities caused by tradition energy sources like coal, which are arguably subsidized because the producer does not pay the full cost of the externality.[218]

IV. CONCLUSION

This paper explored whether the decision in the *Canada Renewable Energy/FIT* case impacted Ghana's ability (as a developing nation) to

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[216] *Ibid* art 31.

[217] *Ibid* art 7.

[218] Stiglitz, *supra* note 96 at 2.

enhance and support renewable energy projects under the *SCM Agreements*. Currently, renewable energy policies that reward investments by subsidizing the higher cost of green technologies, are at conflict with international laws like *TRIMs*, the *SCM Agreement* and the *GATT*. The current state of renewable energy policy is guided largely by Article XX of the *GATT*. Based on current WTO decisions on the issue of environmental subsidies, it is likely that green energy subsidies would be upheld pursuant to Article XX(b) of the *GATT*. They are supported by several WTO Appellate Body decisions as well as the flexibilities contained in the *Paris Agreement*. However, this prediction is not based on any international agreement that addresses the issue of subsidies, since non-actionable subsidies are omitted from the *SCM Agreement*. In this regard, the WTO needs to entertain a specific agreement to address the growing number of disputes on renewable energy and the uniqueness of objectives related to green energy. In order to meet the national goals of lowering CO^2 emissions, the reinstatement of flexibilities like *SCM Agreement* Article 8 may need to be reconsidered.[219] COP 21 and the ensuing *Paris Agreement* references the ability to meet environmental and climate change abatement goals by utilizing government incentives and supports along with other forms of subsidies. This expressed approval is a signal to Member-States that the *SCM Agreement* needs to be re-negotiated to consider a re-instatement of non-actionable subsidies. WTO law needs to take into consideration the policy goal of climate change abatement and green subsidies as a tool to meet this objective.

This study found that the international law on non-actionable subsidies is muddled. On one hand, the WTO Appellate Body recognizes non-actionable subsidies within the green energy sector, but does not go as far as approving or sanctioning them. The lack of clarity creates uncertainty for countries and foreign investors in environmental projects, especially in the developing world, where such projects would not exist but for the infusion of foreign capital. The WTO Appellate Body in the *Canada Renewable Energy/FIT* case laid the foundation for dialogue on the modernization of the WTO *SCM Agreement*. However, this forum has no ability to legislate consensus. Instead, a Ministerial Conference may need to be held, and a

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[219] *SCM Agreement*, *supra* note 1 art 8. See also Michael Froman, Letter to Congress (Notification of Administration entering WTO negotiations on environmental goods), 21 March 2014, online: <www.ustr.gov/sites/default/files/03212014-Letter-to-Congress.pdf>.

consensus obtained from the WTO Subsidies Committee, to consider the reinstatement of Article 8 for environmental subsidies and regional development objectives.

Developed and least-developed countries can carve a green path to development. While this goal will reduce the global effects of climate change, it is a costly endeavour. FIT Programs in the developing world attempt to create some level of financial certainty for investors who have expended 10s of millions on costly green energy projects. Without some assurance that these projects will not be a target of WTO challenges, foreign investors will be reluctant to invest in developing nations. The end result is that these countries will be forced to adopt the cheaper, carbon intensive method of burning fossil fuels to achieve regional development. This outcome in contrary to the regional development and environmental goals in Articles XX(b) of the *GATT*.

The WTO *Canada Renewable Energy/FIT* case has resulted in the WTO deciding the future of non-actionable environmental subsidies, rather than it being addressed by the *SCM Agreement*. The notion that green energy subsidies should be incorporated in an international agreement that deals with the issue is not novel, but evokes reluctance on the part of some WTO Members. The reality is that, even without a concrete agreement governing international trade within the energy sector, government subsidies in the energy sector will continue to influence foreign investments, especially in the developing world. The paradox is that, while fossil fuel subsidies (that is the failure to account for environmental externalities in the cost of the fuel) evade WTO scrutiny, renewable energy subsidies are under attack.

The Canada *Renewable Energy/FIT* case recognizes that environmental subsidies, like those contained in FIT schemes, may be necessary to meet national climate change abatement goals. Despite this recognition, there are no international agreements that expressly address the issue of renewable energy and green technologies. The current international trade environment leaves the application of FIT Programs to the WTO Dispute Settlement Body to interpret the legitimacy of these programs on a case-by-case basis. The current process is most disadvantageous to developing nations which rely on foreign investments to develop infancy industries like renewable energy. Without clear policy on which measures may be actionable as subsidies, foreign investors may shy away from costly projects like solar photovoltaic plants, and the presence of a FIT that is mired in uncertainty may not allay precarious investment concerns. The WTO

Members need to debate the serious issue of environmental subsidies and set clear guidelines as to how they are to be incorporated and addressed by the primary Agreement that deals with the issue of subsidies. It is paradoxical that the SCM *Agreement* does not address the issue of environmental subsidies, especially at a time when the WTO was called upon to essentially overstep its function by crafting policies on the matter. The *Canada Renewable Energy/FIT* decisions are ambiguous on the issue of the legitimacy of FIT subsidies because there are no existing rules within the SCM *Agreement* to guide decisions on non-actionable subsidies. This approach does not lend certainty when the Dispute Settlement Body is bestowed with the dual task of setting and applying policy. However, it is unclear whether these subsidy provisions, as espoused in the *Canada Renewable Energy/FIT* decision, will make their way into multilateral trade negotiations and agreements. The issue is not whether non-actionable subsidies should exist, but rather the need to clarify whether national climate change abatement targets will be subject to complaints by other Members. The precarious climate created by the absence of green energy issues from the WTO Agreements puts the legitimacy of the SCM *Agreement* into question when it abdicates that which it was enacted to govern.